



INSIDE DOPE

by GEORGE F. TAUBENECK

Jerry Tyler
Bombard Congress!

Jerry Tyler

It seems like yesterday that Jerry Tyler was sitting on the other side of this desk, telling us how happy he was. He had been looking for a promising young dynamo whom he could train to step into his seven-league boots, and he had found that ambitious, vigorous character in Joe Krall. The organization he had built around him was well-nigh perfect; and now, in Joe Krall, he had a replacement spark-plug.

"I've worked like a dog," Jerry said, "and I've created a respectable business. But I don't intend to go on at this pace. I've seen too many men of my type give up the ghost in their middle forties or early fifties. That's not for me. Now that my organization is complete, I intend to begin living."

"During the next 30 years I'm going to get better acquainted with my family. And I'm going to do more for my community, for my country, and for the preservation of the Free Enterprise System which has made it possible for me to start from nothing and build this business to its present position."

Jerry Tyler was only 46 when a hotel fire took not only his life, but that of his wife and 12-year-old son. No finer man ever lived, in my book. And just when he was in a position to enjoy a bit of leisure and comfort, and to give his remaining years to the service of his nation, he and his entire family were snuffed out in a horrible tragedy.

Sometimes you wonder what Life is all about.

My sainted mother had the only possible answer for that. Over and over again in our little community it used to be observed that the grandest people would be snatched away by Death. Mother used to say:

"It's because God loved them so much. He wanted them with him."

Bombard Congress!

Never in the 20-year history of AIR CONDITIONING & REFRIGERATION NEWS have so many letters poured in as responded to the editorial: "What's the Matter with America?"

This editorial, which blistered rampant Union Labor, urged support for the Case Bill. (A few of the responding letters follow. And a fraction of the others appear on pages 14, 15.)

Well, Truman has vetoed the Case Bill. Our only hope to regain our rights as equal citizens of a free Republic rests in the faint possibility that Congress will override Truman's veto. Bombard your Senators and Representatives with letters!

And if that editorial, "What's the Matter with America?" voiced your sentiments, spread it around—get it in front of the eyes of more voters! Here's how one subscriber did his bit:

Purdue Research Foundation
Lafayette, Ind.

Editor:

I felt your editorial in the May 27 issue of AIR CONDITIONING & REFRIGERATION NEWS about the best I've read in a long time. So much so that, at my personal expense, I had it run full-page in the local newspaper which has a 35,700 circulation.

When several other people heard that I was paying for its running, they asked to chip in on the cost, which indeed was modest anyway. The full-page editorial in the local paper comes to \$285, but the editor thought enough of it to give it a charity rate of \$170. The message of the editorial is certainly worth that much.

CARL F. BOESTER

(Concluded on Page 6, Column 3)

Jerry Tyler Dead;
Hotel Fire Victim

CHICAGO—Jerry Tyler, president of Tyler Fixture Corp., died June 9 in St. Luke's hospital here, the 61st victim of the fire which swept through the LaSalle hotel here the night of June 4. He had failed to gain consciousness after being brought to the hospital.

His wife, Mary, and 12-year-old son Michael both died in the fire. The Tylers had been in Chicago on a family outing, to attend a baseball game. Funeral services for all three were held June 10 from the Presbyterian Church in Niles, Mich., where the Tyler Fixture Corp. is located.

Mr. Tyler is survived by his father and mother, and a brother, Robert, a vice president of the firm. Both the father and brother are directors of the company.

Company officials stated that "Mr. Tyler's policies will be carried on" in the operation of the business.

Mr. Tyler was born in 1900 in Saginaw, Mich. He attended school (Concluded on Page 4, Column 4)

Nema President Sees
Appliances Hard Hit
By Copper Shortage

NEW YORK CITY—Severe plant curtailments and shutdowns by the end of June, postponing indefinitely the manufacture of a large portion of electrical appliances and allied equipment, and crippling the \$1.5 billion electrical manufacturing industry, were forecast last week by R. L. White, president of the National Electrical Manufacturers Association.

His announcement, which followed a poll of the Association Board of Governors, declared that strikes in the copper mining, smelting, refining, and fabricating industries have resulted in such acute shortages of copper that the entire electrical manufacturing industry is slowly being paralyzed.

Said Mr. White: "Unless the situation is relieved immediately, many electrical appliance dealers throughout the country soon will be forced into bankruptcy because they do not have appliances to sell."

Requirements of the electrical manufacturing industry ultimately demanded from 50 to 60% of all copper mined, Mr. White declared, adding that even firms not dependent wholly on the use of copper, but who (Concluded on Page 21, Column 3)

Hotpoint Establishes
Veteran Preference
On Kitchen Ensembles

CHICAGO—War veterans will get the first Hotpoint all-electric kitchen "packages" of major appliances under a nation-wide allocation plan announced by Edison General Electric Appliance Co., with an initial allotment of 1,000 ensembles scheduled to be shipped by Aug. 15.

Ward R. Schafer, vice president in charge of sales, said the company's production departments, its Hotpoint institute for home planning, 100 distributing agencies, and appliance outlets have the cooperation of builders (Concluded on Page 4, Column 2)

Price Boosted on Small Appliance
Repair Parts By OPA Order

WASHINGTON, D. C.—OPA has increased prices on repair and replacement parts for small electrical appliances by 18% at all levels of sale, effective June 15.

Senate Votes to
Give Producers
Pre-War ProfitTaft Proposal Places
Further Curbs on
OPA Profit Control

WASHINGTON, D. C., June 13—The Senate yesterday approved an amendment to the price control extension bill designed to allow manufacturers and processors pre-war profit margins.

The proposal, sponsored by Sen. Taft of Ohio, would forbid OPA to fix manufacturers' and processors' prices below Oct. 1-15, 1941 levels, plus average cost increases since that period.

Some Administration forces were declared preparing to make a last-ditch fight to write an entirely new OPA extension bill on the floor of the Senate, while others were said to be ready to pass it in a hurry, feeling that a new measure will be written by the Senate-House conference committee.

OPA-supporters declare that the version of the bill as submitted to the Senate would "cripple" effective price control.

Businessmen and apparently most Congressmen believe that the amendments in the extension bill are neces-

WASHINGTON, D. C.—There's still need for businessmen to write to their Congressmen—and even President Truman—to demand that the curbs which Congress is proposing for OPA be made into a law.

For the rumor is here that OPA proponents will seek a veto of the bill as it goes to the president, and then hope that it will be too close to the deadline for OPA's expiration (June 30) for Congress to do anything else but pass a quick bill extending OPA without any "crippling" amendments.

So, there's still a vital need to let your Congressman know that you're vigorously in favor of the curbs Congress has proposed.

sary to take the shackles off of production and to permit producers, wholesalers, and retailers a fair profit.

Of greatest interest to distributors and dealers is the fact that both the House and Senate measures permit pre-war discounts and mark-ups to be restored to distributors and dealers for products the output of which was reduced 75% or more during the war.

Refrigerators, washers, and other major appliances, as well as automobiles would be among the products covered, and the OPA principle of cost absorption by the distribution field would be revoked.

The House measure provides that controls shall be dropped as soon as production matches output in the peak year of July 1, 1940 to June 30, 1941. The Senate bill sets up a three-man decontrol board, independent of the OPA, to direct the lifting of controls for non-agricultural products.

Differences between the two bills will have to be settled in committee after the Senate produces its final version of its bill.

Nash-Kelvinator Plants
Again Operating

DETROIT—Nash-Kelvinator Corp. reopened its Michigan and Wisconsin plants June 10. The plants, producing refrigerators and automobiles, and employing 16,000 persons, were closed May 24 because of the rail and coal emergency.

Heads ACRMA



STUART E. LAUER

Lauer ACRMA Head;
Describes Expanded
Cooling Market

WASHINGTON, D. C.—An unparalleled market expansion for air conditioning and refrigerating equipment was forecast by S. E. Lauer, president of the York Corp., in a statement following his election as president of the Air Conditioning and Refrigerating Machinery Association at the organization's recent annual meeting.

Other officers elected by the Association are: first vice president, F. S. McNeal, Universal Cooler Division of International Detrola Corp.; second vice president, George S. Jones, Jr., Servel, Inc.; chairman of the board, E. T. Murphy, Carrier Corp.; and vice chairman, E. B. Williams, B. F. Sturtevant Division of Westinghouse Electric Corp.

Mr. Lauer stated that the industry's greatly enlarged plant capacity, which was more than doubled for wartime manufacture, probably can be fully employed to meet current and prospective demands for improved types of refrigerating and air conditioning machinery.

"The commercial uses of air conditioning are now well established. Most new restaurants, department stores, theaters, food markets, and many other retail businesses will incorporate air conditioning. According to a recent survey, an estimated expenditure of more than \$100,000,000 on air conditioning and refrigerating equipment will be made (Concluded on Page 21, Column 1)

Prices Set on New
Crosley, AMC Models

WASHINGTON, D. C.—Maximum retail prices for Crosley Corp.'s Model SE 746 household refrigerator and for three Associated Merchandising Corp. models were announced recently by OPA in two amendments to MPR 598.

Amendment 15 added the Crosley model to the table of retail ceiling prices in section 24, Appendix A, as follows:

Make	Brand	1946 Model No.	1st Zone*
The Crosley Corp.	Crosley	SE 746	\$199.95

*Zone 1 includes the 48 states and Washington, D. C.

A charge of \$4.75 may be added if the refrigerator is sold equipped with a left-hand door.

Associated Merchandising Corp.'s models, marketed under the brand, "A. M. C.," were added to the table as follows by Amendment 14:

1946 Model No.	1st Zone	2nd Zone	3rd Zone
MBS 66	\$137.75	\$142.60	\$147.45
MBD 66	157.15	162.00	166.85
AMD 786	183.35	188.20	192.00

7% Absorption
Set In Range
Price IncreaseApplies To Boost of
11% For Producers
Of Electric Ranges

WASHINGTON, D. C.—OPA has granted manufacturers of electric ranges the expected 11% increase over January, 1942, ceiling prices in Amendment 7 to MPR 64 effective June 7. As predicted in a recent issue of the NEWS most of the boost is to be absorbed by wholesalers and retailers.

The same amendment also authorizes a 7.6% increase in existing manufacturers' prices for all other stoves—gas, oil, coal, and wood. Added to a previous increase of 5%, the new boost represents a total increase of 13% for these types of stoves.

As a result of the increases, retail prices of electric ranges are expected to rise about 2% and those of other stoves about 3%, according to OPA.

OPA said that "the rest of the manufacturer increase can be absorbed by wholesalers and retailers without curtailment of margins below those realized in 1941." This absorption amounts to 7% between the two factors. Retailers will stand for 75% of the absorption, and wholesalers 25%.

The manufacturer increases are intended to meet recent increases in wage and materials costs and, the agency declared, "should assist manufacturers to increase their current volume of production."

Gas and electric range manufacturers are required by the amendment to compute retail ceiling prices and to ticket each unit before it leaves the factory. OPA said the term, "electric ranges," takes in electric combination ranges which it describes as including not less than three electric top burners, or less than two top burners and an oven or broiler burner.

The agency formulated regulations by which wholesale distributors of electric ranges are to determine their adjusted ceilings for ranges priced under section 11 of the regulation before June 7. They are to use the first applicable rule of the following:

1. The ceiling price in each zone to retail dealers who provide consumers with delivery, installation, and the servicing necessary to comply with the first year warranty "shall be the price which will yield the wholesale distributor the same percentage of the total dollar margin between the manufacturer's ceiling price to him (including the Federal excise tax) for resales to ultimate consumers in that zone as he received during the period May 7, 1946 to June 6, 1946 in connection with the sale of the most 'comparable' model sold by him to the same class of purchaser."

For sales to other classes of purchasers, the distributor is directed to calculate his ceiling prices "on the basis of the differentials which he had on sales of the comparable model to different classes of purchasers." (Concluded on Back Page, Column 1)

McCray Production
Up In April & May

KENDALLVILLE, Ind. — Overall production of McCray commercial refrigeration products increased 35% during April and May, a company bulletin announced.

Display case production alone jumped 47%, it was said.

"The step up in production means that our backlog of orders is being cut down faster now than it was 60 days ago," declared a statement from the sales department.

TWO THINGS ABOUT WHICH THE HOUSEWIFE BOASTS—1. THE NAME OF THE REFRIGERATOR SHE PURCHASED. 2. THE STAINLESS STEEL SHELVES IN THAT REFRIGERATOR.



WALL WIRE PRODUCTS COMPANY

11333 GENERAL DRIVE
PLYMOUTH, MICHIGAN

Makers of STAINLESS STEEL AND
RETINNED REFRIGERATOR SHELVES AND WELDED WIRE PRODUCTS

OPA Assigns \$116 Retail Price on Kelvinator Unit

DETROIT—The model S-12 condensing unit manufactured by Kelvinator Division of Nash-Kelvinator Corp., may be retailed at a ceiling price of \$116 under the provisions of OPA Order 512, MPR 591.

Ceilings on sales to distributors and dealers were set at \$43.50 and \$51.16 respectively. The order contains the usual stipulations pertaining to the matter of freight and crating charges and to discounts and allowances.

Temprite Plans to Close Plant for Vacation July 1-7

DETROIT—All plant and office operations of Temprite Products Corp. will be closed the week of July 1-7 for a general company vacation, it has been announced by company officials.

Operations will be resumed on July 8.

Balderston Promoted at Philco

PHILADELPHIA—William Balderston, vice president in charge of operations for the past two years, has been elected executive vice president of the Philco Corp., it was announced by John Ballantyne, president, following the organization meeting of the board of directors. All other officers of the corporation were re-elected to serve for the ensuing year.

Gimbel's 1st Floor Frozen Food Center Aids 4th Floor Sales of Home Freezers



Following plans outlined by the Refrigeration Corp. of America, Gimbel's "Frozen Food Center" shown above, consists of four Frigid-Freeze cabinets arranged in a rectangle and topped by an illuminated canopy.

PHILADELPHIA—Using frozen foods to promote the sale of home storage cabinets is not a new idea, but it is one that is becoming increasingly popular.

One of the latest retailers to adopt this merchandising technique is Gimbel's department store here, which has installed a specially designed frozen food center on the ground floor and integrated it with the major appliance department on the fourth floor where home freezers are displayed.

With the establishment of this center, Gimbel's also adds its name to the lengthening list of large department stores using frozen foods as a medium for getting back into the food business.

The frozen food center is arranged according to plans submitted by Refrigeration Corp. of America, a subsidiary of Noma Electric Corp. It consists of four Frigid-Freeze transparent-top dispensing cabinets arranged in a rectangle and topped by an illuminated canopy bearing the words, "Frozen Food Center," on its four sides.

Rounded showcases displaying empty frozen food packages were to have been placed at the four corners.

More than 70 kinds of frozen foods are now offered and, according to Jules Carmosin, merchandising manager of the home furnishings division, the line will be further expanded.

Although the design of the center permits self-service, Gimbel's employs three clerks as a control factor "so that sales are not lost by reason of inattention to the unquestionable public need for information and guidance." It is believed that the presence of clerks is "certain to attract inquirers and lead to selling effort along constructive lines."

"Most persons can be induced to try something new," it is pointed out, "and no display can be animated sufficiently to approximate the power of personal attention."

Another factor cited is that "limitation of exposure to actual selling requirements helps protect the food from varying temperatures and unnecessary handling by non-buyers." It is explained that at peak periods, when activity is more than the clerks can handle, the tops of the cases can be removed completely.

Signs directing customers from one section to the other were to be put in the center and in the major appliance department where Refrigeration Corp.'s Frigid-Freeze home lockers are sold. Display of some home freezers alongside the center or location of the center in a special room, with an appliance salesman stationed there to cultivate cabinet prospects more intensively, are under consideration.

Gimbel's integration of frozen foods and home freezer sales is in keeping with the "related sales concept" promoted for the past two years by Refrigeration Corp. According to this "concept," frozen foods must first become a regular part of the daily diet and this, in turn, will make zero-storage space a necessity.

It is pointed out that a center of this type, carrying a large variety of items, is the "real hope" of the frozen food industry.

"It is here where the public may

expect to get instruction and advice on the selection, care, and proper use of frozen foods," it is proposed. "One large department store which has carried frozen foods for over two years and has given them special attention reports that the sales clerks spend about half of their time answering questions."

"Obviously, such individualized service can only be justified by increased unit purchases and by regularity of buying. Instead of \$5 per year which has been the average family order, there is every reason to believe that this can be made the weekly total and that the average for the year will exceed \$250."

The Mastercraft Pad
Sure does pay,
Let's have a light, Joe,
What do ya say.



MASTERCRAFT ADJUSTABLE REFRIGERATOR PAD

NATIONALLY ENDORSED

The Mastercraft Adjustable Refrigerator Pad has "lightened" many a busy mover's burden. Because it is adjustable to any size and make refrigerator and because it thoroughly protects cabinets from damage in transit it has gained wide spread reputation among dealers and movers.

Priced at only \$11.75 each it is economical as well as durable. The Mastercraft Adjustable Carrying Harness at \$8.50 each will facilitate delivery of your refrigerator.

Attractive lettering of your name on pad at \$2.00 each extra.

Write today for complete folder and prices on pads for refrigerators, home freezers, washers, ironers, ranges, radios; also furniture pads and protective slipcovers.



BEARSE MANUFACTURING CO.
Incorporated 1921
3915-3825 Corland Street
Chicago 47, Ill.

Says GASKET JOE

**COMPRESSORS FIXED
THE SEALS ARE TIGHT,
ANOTHER BOX IS
ALMOST RIGHT.
AND YET, MY FRIENDS,
THERE'S SOMETHING MORE.
BEFORE YOU'RE SURE
YOUR JOB IS PAT
YOU'VE GOT TO TAKE
A GANDER AT
THE GASKET
ON THE
COOLER
DOOR**



JARROW PRODUCTS
420 N. LA SALLE ST., CHICAGO 10, ILLINOIS

THE ORIGINAL
DRAWER TYPE
FREEZER



Closed view of 8 cu. ft.
Freez-All drawer type
freezer.

FREEZ-ALL HOME FREEZERS

win Acclaim Everywhere—

And we're not just making conversation. Thousands who have examined this model have said, "That is the home food freezer we want." Freez-All gives the customer more to talk about with its beautifully streamlined cabinet and its pleasing appointments. This model has one sharp freeze compartment at the top and three easy pull out food storage drawers below. All in all, nothing has been omitted in making Freez-All America's leading home food freezer.

FREEZ-ALL

PORTABLE ELEVATOR MFG. CO.

REFRIGERATION DIVISION

DEPT. 55

BLOOMINGTON, ILLINOIS

Retail-minded thinking... set to music 🎵



Tune in "Holiday for Music" the big new hit show!

In the new Nash-Kelvinator radio program "Holiday for Music," Kelvinator retailers again have proof of the retail-minded thinking that permeates Kelvinator's over-all policy.

It's entertainment designed for that share of America's radio families who are logical prospects for Kelvinator refrigerators, electric ranges and home freezers.

Featuring the new and different music of David Rose, the program is built around

tunes requested by listeners. Songs by Curt Massey, baritone, and lovely Kitty Kallen. Commercials are woven into dialogue as an integral part of the program—and they "sell" because they are delivered by that salesman extraordinary, Harlow Wilcox, and because they are "good listening." "Audience participation" is assured by the award of "hard-to-get" radio-phonographs every program... a feature that pulls thousands of music-request letters each week.

Here's retail-minded thinking set to music... a full half-hour every Wednesday... broadcast over the full 149-station network of the Columbia Broadcasting System! Tune in yourself—and enjoy "Holiday for Music" with your family.

Kelvinator's constant goal is *more sales per dealer*... opportunity for every retailer to build a really *lasting* business. That's what makes the Kelvinator Franchise...

LOOK AHEAD WITH



Wednesday Nights, 10:30 Eastern Daylight Saving Time. Nash-Kelvinator's New Musical Hit—David Rose and his Orchestra, with Curt Massey, Kitty Kallen. CBS, All Stations.

RETAIL-MINDED

Kelvinator

DIVISION OF NASH-KELVINATOR CORPORATION
Kenosha • Milwaukee • DETROIT • Grand Rapids • Lansing



*The most Valuable Franchise
in the Appliance Industry*

A MASTERPIECE in Thirst-quenching Convenience

You're always Sure with an OASIS-built by EBCO, pioneers in the electric water cooler field.

The EBCO Mfg. Co.
401 W. Town St.
Columbus 16, Ohio



KRACK ENGINEERED UNIT COOLERS FIN COILS AIR CONDITIONING

Refrigeration Appliances, Inc.
923 W. Lake St., Chicago 7, Ill.

SUPERIOR VALVE & FITTINGS COMPANY
Pittsburgh 26, Pennsylvania

VALVES, FITTINGS & ACCESSORIES
For All
• Refrigeration
and
• Air Conditioning
Systems

Hotpoint Gives Vets Preference--

(Concluded from Page 1, Column 2)

and nationally famous architects and home designers in the project.

First shipments of the kitchens were to have been ready by June 15.

Wholesale distributors will make arrangements with builders and will receive extra appliance allocations according to territorial allotments, it was explained. The company said that, at the discretion of distributors, kitchens will be supplied and serviced through Hotpoint dealers.

The program will permit one kitchen ensemble to a builder, or one to each project if he has several projects, according to Mr. Schafer. He said builders will be required to show that a veteran will actually occupy the house, and to open it for local inspection for a month after completion.

Mr. Schafer declared that equal distribution in all parts of the nation will be made. The plan calls for allocation of approximately 150 ensembles to the New York area, 50 to the Chicago area, and 25 for Los Angeles.

4 Stores Combined by Clothing Firm to Open Appliance Dept.

NEW ORLEANS—Four adjoining stores have been combined by Labiche's, New Orleans clothing firm, to make one appliance store. Cost of modernizing the acquired facilities has been estimated by the firm at over \$50,000. The new department will be managed by Theodore Eckert.

The company said a complete "electric kitchen package" consists of an electric stove, refrigerator, cabinet sink, and five wall and base cabinets. A dishwasher, disposall, and laundry equipment are listed as optional items.

According to the specific appliances chosen, the retail price delivered to the homesite is between \$475 and \$500, the company stated.

A plan and the electrical appliances to equip "a pilot run" Quonset-hut installation at an eastern college have been provided by Hotpoint, Mr. Schafer stated. This project was described as aimed at setting a pattern for "modern living in otherwise unfavorable surroundings of war houses."

In outlining details of the program, the company said distributors are to submit builders' orders not later than Aug. 15, along with the builder's name, location of home, and plan of kitchen. Distributors also are to carry out the following instructions:

1. Submit pictures of home and kitchen, including the price of both when completed.

2. Arrange for the builder to get Hotpoint's kitchen plan at \$3.

3. Supply dealers with promotional aids and, at his discretion, permit dealers to share in the sales.

4. Assist dealers and builders in providing financing "favorable to the veteran who will purchase the house in keeping with good, established merchandising practices."

When dealers are designated to participate, they will aid in the promotion of the program in their communities.

Victim of Fire



JERRY TYLER

President of Tyler Fixture Corp., who followed his wife and son in death as a result of the LaSalle hotel fire in Chicago.

Tyler Dead--

(Concluded from Page 1, Column 2)

there and in Traverse City, Mich., graduating from high school in the latter city in 1918. He attended the U. S. Naval Academy at Annapolis for two years, and then attended the Colorado School of Mines.

His early business experience was as a salesman for the Shaw-Walker Co. Later he was engaged in the office equipment business in Ft. Lauderdale, Fla.

In 1927 he organized the Tyler Sales Fixture Co. in Muskegon, Mich., as a manufacturer of metal display fixtures. In 1932 the company was moved to Niles, Mich.

In 1937 the company was reorganized as the Tyler Fixture Corp. It manufactures refrigerated display cases and other commercial refrigerators, frozen food display equipment, vapor and refrigerator cooled fruit and vegetable equipment, and various types of store counters and fixtures. It has a wholly owned subsidiary, the Harder Refrigerator Co. in Cobleskill, N. Y., which produces home and farm freezers.

The company became one of the

leaders in the commercial refrigerator field in the '30's when Mr. Tyler introduced welded steel construction and assembly line methods in the manufacture of display cases.

Mr. Tyler was a past president of the Commercial Refrigerator Manufacturers Association, and was active in Michigan state politics.

Operational Losses Force Easy to Postpone Dividend

SYRACUSE, N. Y.—Directors of the Easy Washing Machine Co. have decided to postpone action on a dividend at this time, according to a statement made following the recent annual meeting of company stockholders.

Operational losses caused by the shortage of materials resulting from the recent steel and electrical strikes were given as the reason for this action.

Speedway

Each month, more Speedway Drills come off the production line: are being shipped each day. But, frankly, though we are beginning to cut into our mountainous pile of back orders, there's a deal of waiting still for a lot of people who are ordering Speedway Tools today. However, because they are worth waiting for, we suggest that you place your order now with your local Speedway dealer for earliest possible delivery.

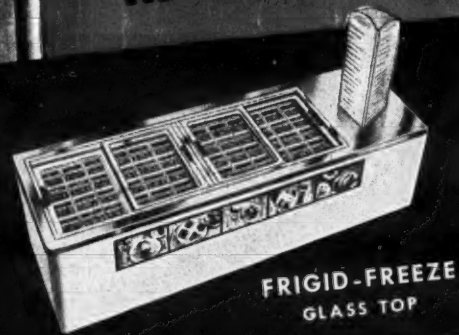
SPEEDWAY MFG. CO.
1871 S. 52nd Ave.
Chicago 50, Ill.

No. 89 equipped with Snap-Release Chuck, No. 89-J with Jacob chuck (as illustrated) \$5.00 extra.

No. 89 1/2" Drill \$29.95

No. 89 1/2" Drill \$11.95

HIGH Profits in LOW Temperature with FRIGID-FREEZE



Frigid-Freeze will make your frozen food department the most profitable in your store or super market. Engineered and built for economy and rugged durability, each of these Frigid-Freeze cabinets will stand up under the most trying conditions and provide day-in, day-out dependable service.

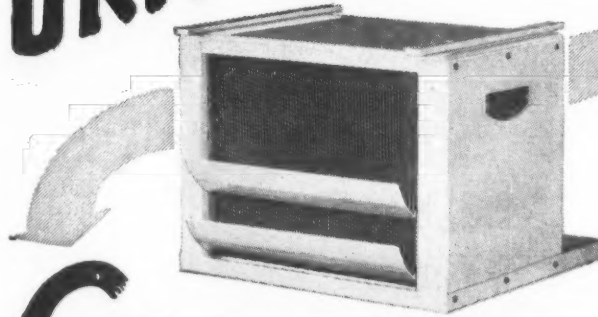
For HIGH PROFITS in Low Temperature Get FRIGID-FREEZE

PIONEERS IN LOW TEMPERATURE • DESIGNING • ENGINEERING • MANUFACTURING • CONSTRUCTION

REFRIGERATION CORPORATION of AMERICA

EXECUTIVE SALES OFFICES • 55 WEST 13th STREET, NEW YORK 11, N. Y.
• FACTORIES—PERTH AMBOY, NEW JERSEY

Filterpure UNIT COOLERS



COMPARE...

- New exclusive Betz coil construction
- Guaranteed ratings
- Built-in air distributor
- Heavy duty motor with oversize oil reservoirs
- Built-in efficiency loop
- Patented liquid distributor
- Fan and motor mounted in safety guard
- Slotted hangers for easy installations
- Complete range of capacities

Sold by Leading Refrigeration Wholesalers

BETZ CORPORATION
HAMMOND, INDIANA



Interchangeable Capacity

THE NEW ALCO THERMO-LIMIT VALVE ...4 different capacities from 1 versatile valve!

With the new ALCO THERMO-LIMIT Valve, it's easy to change capacity on the job—in just a few minutes. By merely inserting different cage assemblies, this one unique valve will give you four separate capacities:

Catalog Number	Nominal Capacity in Tons	
	"Freon-12"	Methyl Chloride
151	.25	.50
152	.50	1.00
153	1.00	2.00
154	1.50	3.00

The ALCO THERMO-LIMIT is a 'safety' valve that limits pressure to prevent motor overload. It is liquid charged for positive control in any location and position. Parts are interchangeable so that pressure, capacity and super-heat can be changed in the field.

Available at your wholesaler's for smaller capacity commercial refrigeration. Ask for our Bulletin 152.



Designers and Manufacturers
of Thermostatic Expansion
Valves; Pressure Regulating
Valves; Solenoid Valves;
Float Valves; Float Switches.

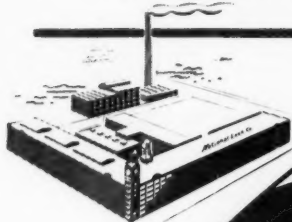
ALCO VALVE CO.

843 KINGSLAND AVE. • ST. LOUIS 5, MO.

Headquarters

REFRIGERATOR HARDWARE for domestic, commercial and low temperature cabinets

Standard and custom built designs. If you are a manufacturer or jobber, write for our new Refrigerator Hardware Catalog No. R-88.



**SURFACE TYPE
HARDWARE**

**"THRU THE DOOR"
HARDWARE**

EDGE MOUNTED HARDWARE

PLASTICS

DIE CASTING



NATIONAL LOCK COMPANY
Refrigerator Hardware Division
ROCKFORD, ILLINOIS

INSIDE DOPE

by **GEORGE F. TAUBENECK**

(Concluded from Page 1, Column 1)

PREACH IT IN PUBLIC

National Association of Ice
Refrigerator Manufacturers
1706-L St., N.W.
Washington 6, D. C.

Editor:

You have probably received hundreds of letters commenting on your editorial "What's the Matter With America," but I am positive that you will find no one that agrees with you as I do.

I wish it were possible that this editorial could be reproduced in every paper in the United States, but I suppose this would be out of the question.

If you would care to make a reprint of this Article and then could get every Trade Association, Chamber of Commerce and Industry to distribute it among their members, you would be rendering your Country a valuable service, and I am sure every Association or Industry would be willing to share the expense.

We are drifting steadily into a condition of chaos, which you termed "Going to hell in a hand basket."

I am going to reread this editorial of yours till I learn it by heart, then I am going to preach it in every public gathering where I am asked to speak, contributing in my feeble way to the spread of your gospel.

E. G. VAIL

WIDER CIRCULATION

G. D. Hargreaves
643 Roosevelt Ave.
Salt Lake City, Utah

Editor:

I am heartily in accord with your front page editorial, "What's the Matter with America," appearing in AIR CONDITIONING & REFRIGERATION NEWS of May 27, and further agree with A. B. Holden and J. A. Evans, that such editorials should have wider circulation.

I am for that reason forwarding a copy of your editorial to the Editor of our leading local newspaper, as he too, is capable of helping to wake up the people of America.

Editorials such as yours and our local Editor write on the above subject are front page material and similar editorials should be appearing on the front pages of every newspaper in America, every day until this menace to America is definitely eliminated. To place them in one corner of a back page is not enough. Put them where they will be seen and read. There is certainly no news of more importance to this country at the present time.

In turn I am also enclosing an editorial appearing in our local paper under the caption, "A Communist Conspiracy to Further U. S. Labor Strike," which may be of interest to you. This subject must be followed up every day, not once a week, or once a month. The people must be kept conscious of the dangers that confront them if we are to expect them to act. Please send me 100 reprints of "What's the Matter with America?"

G. D. HARGREAVES

Give me a little more space and I will tell you something. This resolution committee was and is L. du Pont. At this meeting James H. Rand, Jr., president of Remington Rand Co., asked Lam. du Pont how this (union & poor, etc.) could be sold to the nation!

Mr. du Pont frankly said, "I'll leave it to the public relation talent to sweeten up the bitter pill." He said more but that can wait, this is enough for my point, Mr. Editor. So it's up to such as you "to sweeten up" is it? You are doing his dirty work! You have the guts to infer that labor is on a pedestal and above the law? The Wagner law is not fair to your way of thinking? You call arrogance the stand labor makes and compare it to Hitler?

Hitler was one man. Du Pont and labor, which of these represents one person? Is not the despotism planned by du Pont more destructive? If we had no du Ponts and others of his ilk through the past and present years we would not have unions and you would not have a fit. You talk for money. You have reduced yourself to a hireling without conscience. That is something quite low. Can you figure that out?—Finally,

I'm taking you up on your bet. You infer that our unions, directly or indirectly, will cause World War III. I do not know how you arrive at that, but it makes no difference to me. You can keep your secret. You state that Russia will start that war between years 1955-60 and be the winner. Since you are so sure and because you have chosen a five-year span, you should give long odds on such a bet. I bet you're wrong—what are the odds?

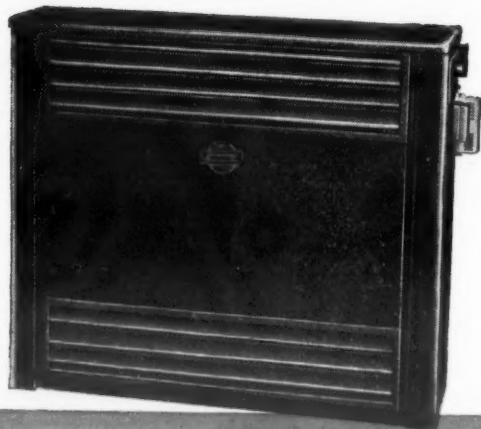
WALTER TABERSKI

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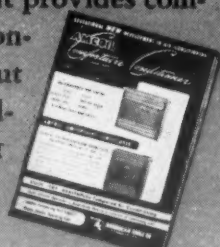
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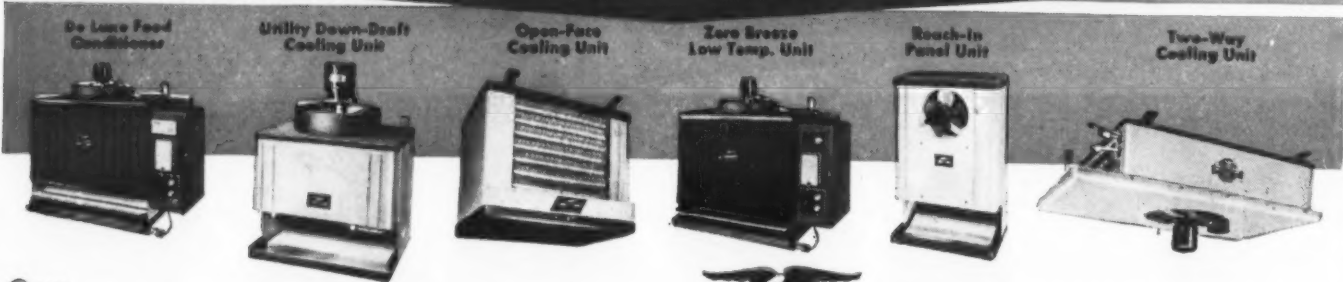
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THIS WILL BE NEWS TO MR. DU PONT

313 E. Division St.
Dowagiac, Mich.

Editor:

Your front page editorial or comment, whichever you choose to call it, on unions, titled, "What's the Matter with America?" is as vicious an attack upon labor as ever I heard. More vicious than I ever read before, and your logic makes no sense. A sane person picking up your NEWS in my home, seeing that article, would consider me an applicant for an asylum if I swallowed that bait.

I consider it foul enough to be moved to write to you and tell you that line is exactly what a Mr. du Pont would have us believe. Since when are you in his pay? Kindly mind your own knitting, give us what the paper is published for—air conditioning and refrigeration news. You delved into something you evidently know nothing about, for instance:

Mr. Editor, the article you wrote, or have been coached to write, is a birdbrain concoction. The phrase "court packing" is a decade old, a worn out ghost of the past, is it not? Maybe you wanna go back to the "good ole days" of Hoover? You say, "All the business men you know were keyed up, eager to do bigger and better things." Does one of those men "you know" happen to be Lamont du Pont? Would you like for me to copy his set-up of the resolution committee of N.A.M. of Sept. 17, 1942 for you? (What he planned to do about the unions and how the burden of War III was to be unloaded on the poor?)

OUT OF BUSINESS?

Dallas Air Conditioning Co.
2809-11 Canton St.
Dallas 1, Tex.

Editor:

Your editorial on the front page of your May 27 issue titled "What's the Matter with America?" is certainly timely and, in my opinion, directly to the point.

In our type of business, shipments have become so long and so uncertain that it is impossible to plan an installation of any character, and unless the situation is corrected, thousands of small business men like ourselves will undoubtedly be forced out of business.

I hope that this editorial is only the beginning of a series which you will continue to write until Congress is forced by the people of our industry and all others like us to do something to correct the situation.

MARVIN L. BROWN

Ludwig Hommel & Co.
600 Second Ave.
Pittsburgh 19, Pa.

Editor:

I should like to see you reprint, in booklet form, your admirable editorial entitled, "What's the Matter with America?" which appeared in your May 27 issue.

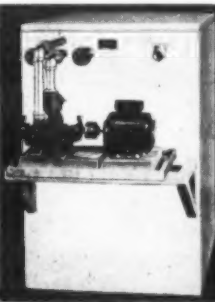
If every citizen could and would read it, perhaps we would get some relief from the present intolerable and dangerous situation.

With kindest regards.

LUDWIG HOMMEL

Filtrine
HIGH EFFICIENCY

**WATER
COOLERS
AND
FILTERS**



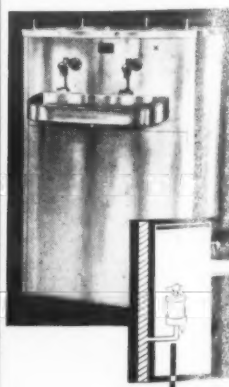
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Water Coolers &
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FILTER...
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WATER**

Tennis Star-Salesman



FREDERICK SCHROEDER, JR.

Frederick Schroeder, Jr. Joins Kold-Hold Staff

LOS ANGELES—Frederick (Ted) Schroeder, Jr., holder of several national tennis championships and candidate for the 1946 Davis Cup team, has joined the sales force of Kold-Hold Pacific Sales Co. here, a company release announced.

Following his recent discharge from the Navy, where he had served three and a half years as a naval aviator, destroyer engineer, and destroyer executive officer, Mr. Schroeder went to work for the plate type evaporator firm, calling on trade in California, Arizona, and Nevada, the release said.

As a tennis star, Mr. Schroeder won the national junior championship in 1939, the men's national doubles title in 1940 and 1941, the national clay court men's doubles in 1941, and the national single and mixed double championship in 1942, the release stated.

He will shortly represent the United States against the Philippine Islands at San Francisco, according to the release.

Veterans Increase Buying of Surplus Refrigeration Items

WASHINGTON, D. C.—April figures covering sales of surplus consumer goods to veterans rose to a reported cost of \$40,500,000, or an increase of 87% over March purchases the War Assets Administration announces. Included in this over-all amount is \$343,500 worth of refrigeration equipment sold for \$228,427 and \$318,822 in house furnishings which sold for \$87,577.

Veterans bought 24.7% of all consumer goods sold, the government report stated.

Store Erects Appliance Bldg.

WILLIAMSPORT, Pa.—The South Williamsport Community store has been completed here, with a separate building for major appliances and model kitchen promotion. Chester D. Troxell has been appointed manager of the appliance department, it was said.

St. Louis Baker Finds 40 ft. Freezer Solves His Pastry Problems

ST. LOUIS — Many perplexing problems in connection with sharp freezing of pastry doughs for the retail market have been solved by the installation of a 40-cu. ft. sharp freezer at the Pfeiffer Pastries Bakery at 2612 N. Kingshighway here.

The Pfeiffer Bakery, which is producing 16 varieties of sharp-frozen pastry doughs, started out last January with a 16-cu. ft. home freezer to handle the freezing operations. This, however, proved unsatisfactory, as only -15° F. temperatures could be maintained and it required up to eight hours to freeze the dough sufficiently. National Refrigeration Co. installed a new five-door, 40-cu. ft., -40° F. reach-in box in May.

It is claimed that this new installation will freeze any of the pastries, handled by the bakery, within two hours.

Correction

Contrary to a statement included in the May 27 issue of AIR CONDITIONING & REFRIGERATION NEWS, Frigid Service, Inc. of Lincoln, Neb., does not sell wholesale any type of equipment whatever. According to J. E. Cole, manager, the firm only retails household and farm appliances.

G-E Commercial Distributor Names Woman to Sales Post

BROOKLYN—Commercial Refrigeration Co., G-E distributor here, has announced the appointment of Florence Horn to handle all air conditioning and refrigeration equipment sales for the company, starting June 1. Miss Horn was formerly an assistant in charge of sales with Nathan Straus Duparquet, Inc., located in New York City, according to the company's announcement of the new appointment.

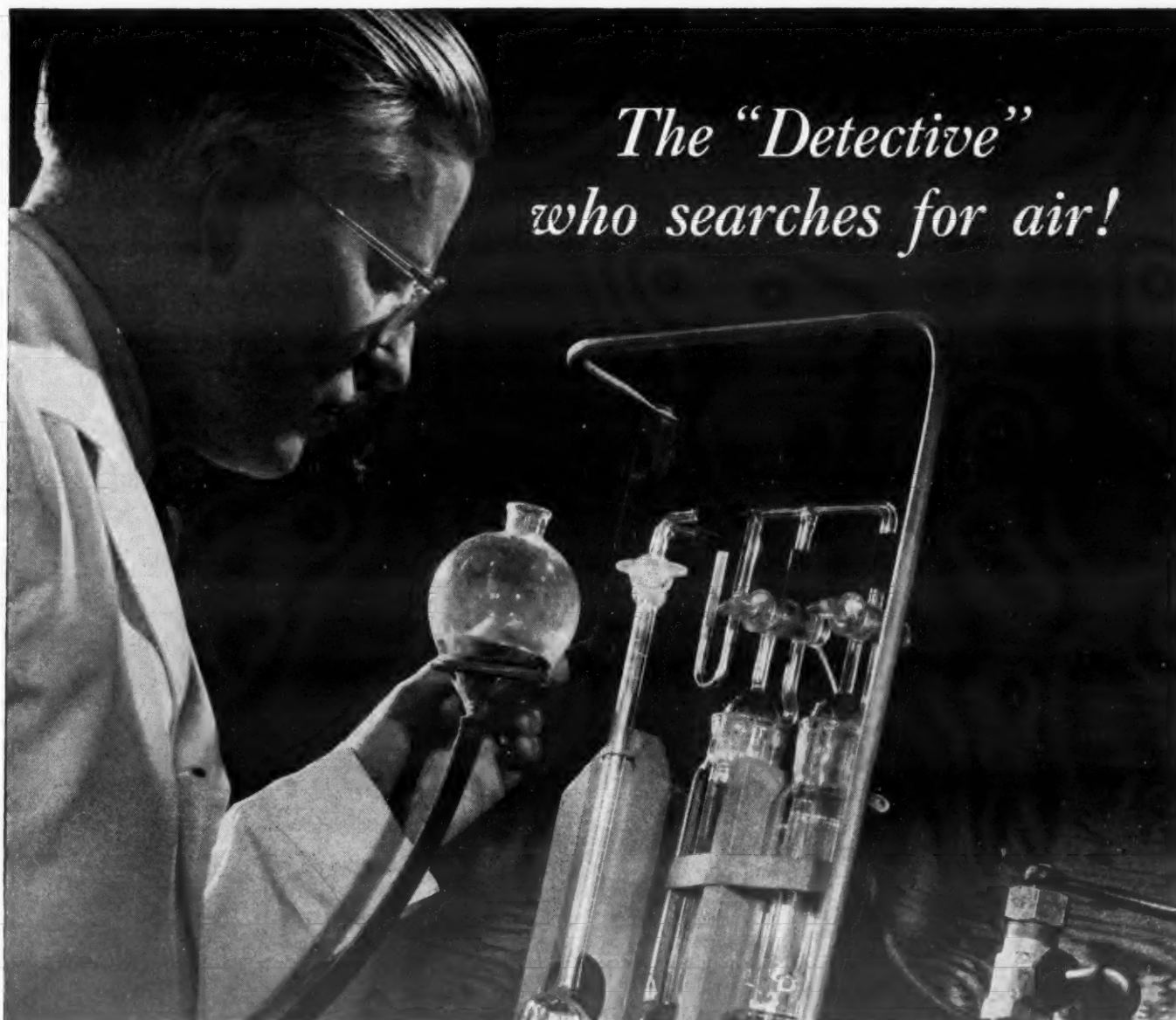
Two Nebraska Projects Include Refrigeration

OMAHA, Neb.—The Civilian Production Administration has approved two more building and expansion projects involving important refrigeration installations in Nebraska, while a \$35,000 freezer locker plant has been completed at Norfolk, Neb.

The Fairmont Creamery Co. of Omaha was given the go-ahead signal to expand its refrigerated storage space and make other improvements at the North Platte plant, at a cost of \$110,000. Grover Rasley was permitted to proceed with construction of a \$4,700 concrete fur storage vault which will utilize mechanical refrigeration for temperature control and air conditioning.

New Dealership Opens in N.C.

HENDERSONVILLE, N. C.—A new appliance dealership here is Brown Appliance Co., which will be headed by Patterson A. Brown, Eugene A. Brown and Pauline Brown.



The "Detective" who searches for air!

To protect air conditioning and refrigerating systems . . . prolong their life and usefulness . . . this laboratory "detective" guards the purity of "Freon" safe refrigerants. He's on the trail of non-condensable gases (mainly air) of which the tolerance permitted in "Freon" is less than 2%. All "Freon" is so analyzed before shipment.

The exceptional purity of all "Freon" refrigerants—controlled by

many laboratory tests such as this one—helps increase the operating efficiency of air conditioning and refrigerating systems. It reduces the risk of corroding . . . forestalls the need of frequent overhauls and aids in keeping maintenance costs low.

"Freon" refrigerants are also free from acids . . . and are almost totally free from moisture (less than 25 parts in a million parts of "Freon") and other impurities. In addition, they

are harmless . . . non-toxic, non-flammable, non-explosive . . . odorless and stainless.

For compact, safe, long-lasting refrigerating systems, specify "Freon" safe refrigerants. There's a "Freon" for every job, every temperature requirement. For detailed technical information, write Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Delaware.

OUTSTANDING FEATURES OF "FREON" SAFE REFRIGERANTS

1. Narrow boiling point range—confined within limits of 1/2 degree.
2. Less than 2% of insoluble gases in vapor phase.
3. Freedom from acids. There are none in "Freon."
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It's a
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- ★ Exclusive Dealer Franchise
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How to Stay in the Running

Dealer Uses Furniture Line, Deposit System To Overcome Long Appliance Delivery Delays

By C. Dale Mericle

LANSING, Mich.—Although appliance shipments continue to be pretty slim—about four refrigerators a month, for example—the Better Housekeeping Shop here is managing to gross about \$2,000 a week, says Howard R. Morehouse, manager.

Located at 202 E. Michigan Ave., the shop is just three blocks east of the imposing state Capitol Bldg. It was organized last Sept. 1 by a Lansing business man, who also operates two other appliance firms in Lansing, including an appliance and radio service operation. Assisting Mr. Morehouse in managing the Better Housekeeping Shop is Martin C. Harrison.

Since its inception, Better Housekeeping has not limited its lines to appliances, but has carried furniture and floor coverings. But just as soon as possible, furniture will be dropped and Better Housekeeping Shop will devote itself exclusively to major and small appliances.

"We don't like to handle furniture," readily admits Mr. Morehouse, who has been in the appliance business for 26 years. "The furniture you can get today isn't very good. It's poorly constructed. Most of the best spring steel has been cornered by the auto plants; it's impossible to get good upholstery; and it will

probably be at least two years before there is an adequate supply of good, seasoned lumber.

"Furniture sales are helping us maintain our gross, however, and these sales should help future appliance sales. We've been offering our furniture at prices which run \$5 or \$10 below competition.

"We aren't trying to run anyone out of the furniture business, but our lower prices do attract a number of customers who should be good prospects for appliances when normal shipments resume," he declared.

Better Housekeeping holds a Crosley franchise for refrigerators, ranges, and radios, and also sells Coolerator refrigerators; Universal and Marion ranges; Boro kitchen cabinets; Emerson, Wilcox-Gay, Arvin, Stewart-Warner, and Majestic radios; and four lines of wringer-type washers.

Long Wait for Refrigerators

Deliveries are comparatively good on gas ranges and some small appliances, but a customer has to wait about three to four months for a refrigerator and six months or so for an electric range or washer, according to Mr. Morehouse.

"Some brands of irons are coming in pretty well, and we have received

quite a few electric clocks," he says. "But I don't understand why there is never an alarm clock in the shipments. That's what we really need in the clock line."

In general, though, shipments are rather sporadic, and Mr. Morehouse is quite frank in telling customers how long they will have to wait.

"We have to sell merchandise to stay in business," he'll say to a would-be purchaser of a washer, "but if you want the truth, it'll take six months at best before we can deliver one to you. Why don't you place an order with us and get your name on our waiting list?" he suggests.

Better Housekeeping offers its customers a somewhat unusual "priorities" plan for placing advance orders on appliances. This plan requires a cash deposit when the order is taken.

"So many dealers," contends Mr. Morehouse, "say they will be glad to take down a customer's name and address and promise to get in touch with her as soon as an appliance comes in. This sounds good, but what happens in many cases?"

"Well, the dealer writes down the customer's name and 'files' the slip on a spindle. A refrigerator is finally received and the dealer then 'forgets' on which spindle he filed the name, so he proceeds to call up his brother-

in-law, or some other relative or friend, and lets him have the particular piece of merchandise.

"We don't think that's fair. Here's what we do. We urge our customers to place an order for future delivery. This order, however, must be accompanied by a cash deposit. There is no set amount required, but deposits on a large appliance are generally \$5 or \$10. Some deposits run as high as \$50.

"This money is then placed in the Bank of Lansing in a joint savings account under the name of both the customer and Better Housekeeping Shop. The customer can make further deposits to his account, building up the fund toward the eventual purchase of the appliance, but he is not permitted to withdraw any or all of the fund unless the store's signature accompanies his own withdrawal request," explains Mr. Morehouse.

"We maintain a special ledger to record these advance orders and deposits, which is separate from the general ledger of the store. In the front section of the journal we maintain an alphabetical listing of the names of the customers—well over 200 have signed up—showing on which page of the ledger their individual accounts appear.

First Names First

"Throughout the book are set up sections for refrigerators, ranges, water heaters, radios, washers, etc., under which the customer's name is listed. Each listing shows the name of the customer, the date the order was placed, the amount deposited, model and make of appliance or radio wanted, and the initial of the salesman—either myself or Mr. Harrison. "When an appliance is received, a refrigerator, say, we check over the advance orders listed in this special ledger, and get in touch with the first name listed—the name that has been on the books the longest. Then the customer comes in, and, using the amount of money already on deposit, we complete the deal.

"Most sales nowadays are for cash, although there are a fair number of people buying on time. Under regulation W this means one-third down and the balance in 12 months.

"These deposits on advance orders are never put through the cash register. These deals are not recorded on the register as sales until the customer comes into the store and makes the complete down payment or otherwise closes the sale."

Deposits are also taken on small appliances, said Mr. Morehouse, and records are maintained in about the same manner as for major appliances. Deposits are generally so small, however, that they are not set up in a joint bank account, but are handled in the store's accounts.

Never Been Turned Down

There has never been an instance when the customer who has ordered an appliance on the priority plan has turned it down when the appliance finally arrived at the dealership, according to Mr. Morehouse. There have, however, been a few instances where customers have decided to cancel their order and get their deposit back.

Sometimes this is the result of the customer's having obtained the appliance through some other source, but just as frequently it's been sheer necessity, he believes. Lansing, like many other communities, has been hard hit by strikes, particularly the

prolonged General Motors strike.

"A number of people came in for their \$5 deposit just so they could buy pork chops during the strike," he said.

How have OPA price controls affected the Better Housekeeping Shop?

The firm does have some merchandise to sell, and is netting a certain amount, but not nearly as much, of course, as would be gained if appliances were readily available. Mr. Morehouse's chief complaint is not so much that his store's margins have been kept too low, but that price controls have apparently kept a lot of appliances off the market.

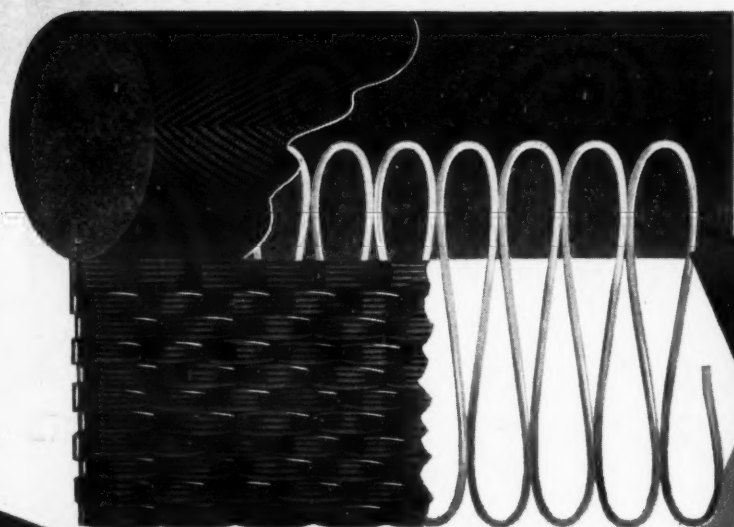
"There has to be some kind of price control, because without it, we'd have inflation," he says. "I well remember the inflation which followed the last war, and the depression that came along afterwards. We don't want to repeat that.

"But it seems to me that the OPA ought to be a little more reasonable in its operations. For example, I know of one manufacturer of small appliances which has a warehouse full of finished items which are in great demand. The company won't ship them out because it says it will lose money at present ceilings. The firm insists that another dollar must be added to the ceiling price.

"It's obvious that labor and material costs have risen for this manufacturer just as for most others, but something should be done to get those products out into the market. Personally," continued Mr. Morehouse, "I think OPA should either grant this manufacturer the price increase or have the power to force him to ship the merchandise to distributors and dealers."

Mr. Morehouse also admits to being perplexed over the apparent irregular geographic distribution of appliances. Some parts of the country seem to be much better supplied than others, he contends.

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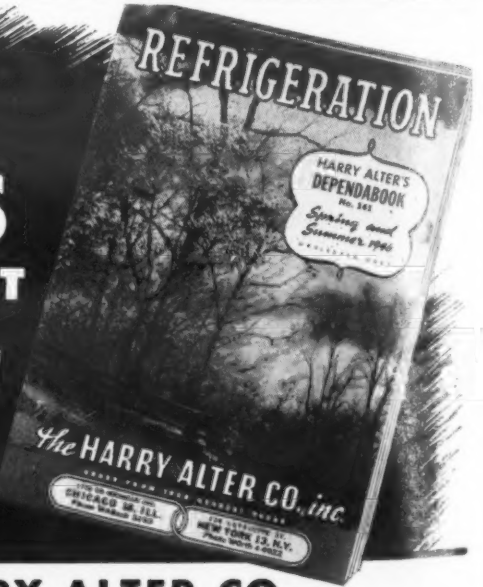
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Refrigeration Contractors, Fixture Dealers, One-Man Shops May Unite in Local Group

By C. Dale Mericle

ST. PAUL—Refrigeration contractors, fixture dealers, and independent operators here and in neighboring Minneapolis are studying plans to organize a single large group to cope with the numerous problems these men face today.

The organization move began recently with a joint meeting at Club Criterion of the Twin Cities Refrigeration Contractors Association, the Commercial Refrigeration Dealers Association, and "independents" who operate one-man contracting and servicing firms.

8-Man Committee Appointed

After listening to addresses by Warren Farr of Cleveland, president of the National Association of Refrigeration Contractors, and Ed Wright of Youngstown, Ohio, recording secretary of the national association, the assembled group voted the appointment of an eight-man joint committee to prepare suggestions for the possible merger.

Exponents of the move to bring about the formation of a stronger association through the amalgamation of the present groups hope that affiliation with the National Association of Refrigeration Contractors will ultimately follow.

One of the groups is already a member of the national association, but its members feel that much more could be accomplished through an association of firms representing all types of refrigeration contracting.

Committee Members Listed

The eight-man committee includes Art Palen and H. Gartner, representing the Twin Cities contractors association; John Bergstad and George Ornes of the fixture association; Les Finley and Del Schwinek, who belong to neither association, and Joseph Parupsky and Don Stevens, who are members of both the contractors and fixture associations.

Discussing the aims of the national contractors association, Mr. Wright emphasized that "today it takes a group to meet a group. The greatest thing we can do is to get understanding in this industry. We have to have cooperation."

Citing past experiences, Mr. Wright described how the locker industry early in the war pooled its resources and successfully demonstrated before Congressmen and other government officials the importance of locker plants in the national wartime economy, thus receiving encouragement and help from the government for locker plant construction.

"The underlying purpose of the national association of contractors," he declared, "is to quit talking and start doing. The safest way to lick any enemy and keep him licked is to make him a friend."

A national group could be of tremendous help in meeting the service problem which looms in connection with home freezers, he stated, and the group could also be active in problems of ceiling prices, and what to do about the increasing number

of people who apparently are studying to become service men, said Mr. Wright.

The three immediate objectives of the 21 already established for the national contractors association, according to President Farr are (1) relations with manufacturers, (2) relations with labor, and (3) trying to show local groups how they can affiliate to benefit both themselves and the industry as a whole.

"We refrigeration contractors are the local outlet for much refrigeration equipment," said Mr. Farr, "and the association has been collecting data and studying the purchasing power of contractors. In one city we've found that contractors buy \$5,000,000 worth of equipment a year from the manufacturers."

"Labor relations is among the first three objectives out of necessity, not

by choice," he explained. "The national association has made extensive studies of contracts with labor unions and has prepared model contracts to guide individual contractors and local associations."

Organization of local groups could be on a broad basis to include not only contractors but sales and service organizations as well, said Mr. Farr. Such an organization could meet in separate divisions to solve individual problems, but the combined membership would make for a strong organization, he declared, adding the suggestion that such a group should hire a permanent secretary, if only on a part-time basis.

Houston Dealer Moves

HOUSTON, Tex.—Lansdowne & Moody, dealer in home appliances, commercial refrigeration, and ventilating equipment, has moved into new quarters here, occupying 12,500 sq. ft., said to be the largest such store under one roof in the southwest.

In its new location the store will maintain a service and repair department and testing laboratory.

Fellmann New Deepfreeze Regional Sales Manager

NORTH CHICAGO, Ill.—John Fellmann, formerly district manager and more recently manager of the Kitchen Sales Division of Edison General Electric Appliance Co., has been appointed central regional sales manager of Deepfreeze Division, Motor Products Corp., according to an announcement by F. F. Duggan, general sales manager of Deepfreeze.

Mr. Fellmann has been associated with the industry for more than 20 years, beginning as a manufacturer's representative for Hotpoint.

Shield Refrigeration Co. Opens Up in Los Angeles

LOS ANGELES—Thomas Eugene Shield and Edward Swander have published a certificate that they are conducting business under the firm name of Shield Refrigeration Co. at 5916 Melrose Ave., Los Angeles.



PRECISION MAKES PROFITS
... When you sell Servel*

THE GAUGE THAT LINES UP EXTRA PROFITS FOR YOU

Look closely at the alignment gauge the workman is operating. It is typical of the quality control that keeps service costs on Servel condensing units down—and profits up. This is the final inspection of the skeleton of a Servel compressor that has already been checked six times in the course of manufacture!

This seventh inspection is to make sure that cylinder bores are exactly at right angles to the crankshaft line, that the motor locating ring plane will hold the motor exactly parallel to the crankshaft, and that the thrust bearing will hold the pistons in line with the cylinders.

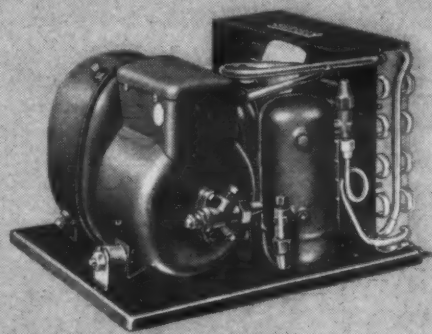
Limits of error are but a small fraction of a thousandth of an inch. This watch-like precision assures smooth operation and low friction losses.

Precision manufacturing methods like these mean longer life for Servel units, lower operating costs, lower maintenance expenses... and larger profits for dealers and fixture manufacturers.

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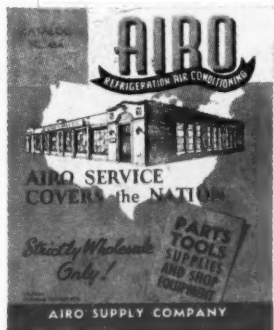


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Tests Prove 4 in. Wall Thickness Best In Home Freezer Chests, Says C. E. Lund

ST. PAUL—That the optimum wall thickness for chest type home freezers is 4 inches, and that frozen foods would remain at no higher than 32° F. for at least as long as 56 hours in the event of power failure were among the major points brought out by C. E. Lund, director of research for Seeger-Sunbeam Corp., in a paper presented before the American Society of Refrigerating Engineers at its thirty-third spring meeting here recently.

Discussing "Technical Phases of Home Freezer Development," Mr. Lund outlined in detail results of tests conducted with chest type freezers to determine operating characteristics and costs under differing construction methods.

"Development of a home freezer begins with the establishment of the overall dimensions, which are limited by the present type of home building requirements and practices," declared Mr. Lund. "A survey has shown that 30 inches is the maximum average width of door through which a cabinet may be delivered. Thus the width should not exceed 29 inches, allowing 1 inch for clearance.

"For a chest type cabinet with a top opening door, a definite relationship must exist between the height of the cabinet and the depth of the well inside the cabinet. For a deep well, the overall height of the cabinet must be less than that for a shallow well in order to provide ease of accessibility for persons of less than

normal height. Thus, the width and height may be considered as fixed dimensions with the length being variable to accommodate for flexibility in capacity."

Since the thickness of the walls is important in determining interior dimensions, and since wall thickness depends largely on thickness of insulation, it is of extreme importance to determine the proper amount of insulation which will keep heat flow at a minimum and still be within practical bounds, pointed out Mr. Lund.

Adequate Heat Stoppage

Four inches of insulation, he said, is indicated as the best thickness, because it provides adequate stoppage of heat flow at moderate operating cost without sacrificing too much interior storage capacity.

"Assuming a cabinet wall constructed only with 1 inch air space, the overall coefficient of heat transmission U is 0.471 B.t.u. per sq. ft. per hr. per °F. If this air space were filled with 1 inch of insulation having a conductivity value of $k = 0.27$, the heat flow will be reduced 55.2%, or the resistance of the wall to heat flow will be increased the same amount. Likewise, the addition of 2 inches, 3 inches, etc., will reduce the heat flow 72.4% and 79.6%, respectively," said Mr. Lund.

With 4 inches of insulation the reduction in heat flow is 83.4%; with

5 inches, 85.7%; with 6 inches, 87.4%; with 7 inches, 88.5%. This, he pointed out, indicates that comparatively little reduction in heat flow is to be gained by increasing the thickness of insulation beyond 4 inches.

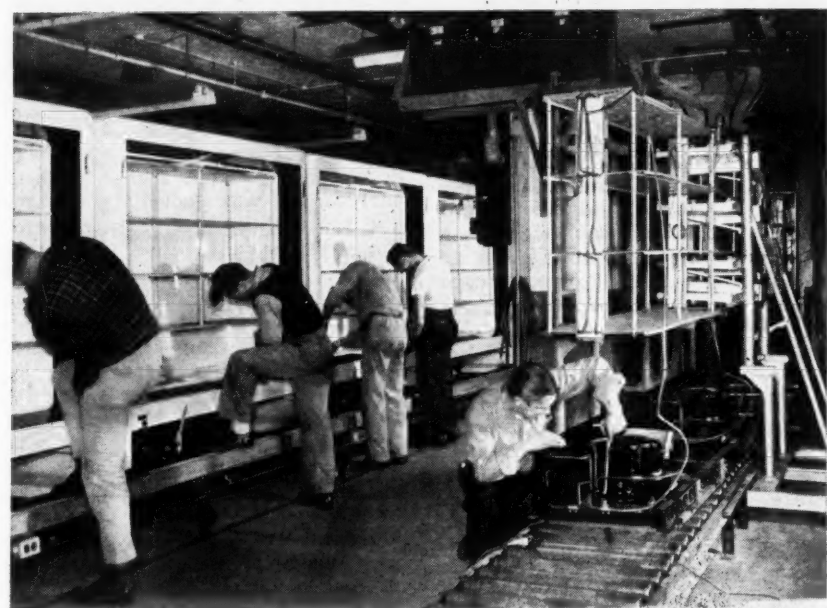
Similar results also appear in studies made by Mr. Lund concerning the relationship of insulation thickness to operating costs for chest type freezers. For the tests a 9-cu. ft. chest type freezer powered by a 1/4-hp. condensing unit was employed, operating at 0° F. interior temperature at a 100° F. ambient with the power costs based on 2 1/2 kw/hr. to drive the compressor at a suction pressure of 5 p.s.i.

Monthly operating costs under the above conditions with 1 inch of insulation totaled \$4.70; with 2 inches, \$3.32; 3 inches, \$2.54; 4 inches, \$2.04; 5 inches, \$1.78; 6 inches, \$1.57; 7 inches, \$1.42.

A considerable drop in cost for each additional inch of insulation occurs up through the 4 inches thickness, but beyond that the reduction in operating cost becomes increasingly smaller, he emphasized.

The same trend appears to hold true when considering the effect of insulation thickness on exterior surface condensation or sweating of the cabinet, continued Mr. Lund. Maximum permissible relative humidities without excessive sweating, as far as insulation thickness alone is con-

Carrier Corp. Assembly Line



Above is a section of the food freezer assembly line at Carrier Corp.'s Syracuse, N. Y. plant, showing the installation of hermetic refrigeration units in 30-cu. ft. models prior to fastening the center mullions and hanging the doors.

cerned, are shown in the following table:

Insulation Thickness	70°	110°
1 in.	76%	70%
2 in.	83%	79%
3 in.	88%	85%
4 in.	90%	90%
5 in.	92%	91%
6 in.	93%	92%
7 in.	94%	93%

"From the preceding discussion, a thickness of 4 or 5 inches of insulation for cabinet walls appears to be the economic thickness for freezer cabinets," declared Mr. Lund. "As previously stated, the width and height of a chest type cabinet are fixed because of necessity.

"If the insulation thickness of a 9-cu. ft. cabinet were increased from 4 to 5 inches, the capacity would be reduced to 7.6 cu. ft. or 19.2%. Likewise, an increase from 4 to 6 inches of insulation in the walls will reduce the capacity to 6.02 cu. ft. or 36%.

"The cabinet capacity, however, may be maintained constant by increasing the length of the cabinet, but this will increase materially the cabinet cost which may not be just-

fied for the small gain in resistance to heat flow when additional insulation is used," said Mr. Lund.

In another series of tests described by Mr. Lund (See Table 1) attempts were made to establish the temperature gradient that occurs within a cabinet under both load and no load conditions. The tests were made with a 9-cu. ft. freezer with interior dimensions of: length, 44 1/2 inches; width, 20 inches; height, 18 inches. For the tests under load rectangular quart milk cartons filled with water were employed. These were stacked to within 1 inch of the top opening lid. Full weight of the load was 395 lbs.

This particular model had 4 inches of insulation on the sides, 5 inches in the bottom, and 2 1/2 inches in the lid. Ambient was 100° F. and temperature in the center of the cabinet was 0° F.

"With a load the surface temperature below the lid is 21 1/2° as compared with 14° F. with a load," reported Mr. Lund. "The temperature drop within the first inch below the top is 9° for the loaded cabinet as compared with 5° for the unloaded

(Concluded on next page)

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Lund Discusses Causes and Patterns Of Fluctuating Freezer Temperatures

(Concluded from preceding page)

cabinet. Within the first 3 inches of the top, the temperature drops from 21½° to 4° for the loaded cabinet and 14° to 3° for the unloaded condition."

According to Mr. Lund's computations, at 6 inches below the top, the temperature is almost 0° F., and the temperature gradient continues at 0° F. until a depth of 14 inches, where it falls a fraction of a degree below 0° F.

"In general practice, the uniform loading of cabinet to within 2 inches of the top will be more of an exception than a rule because of the irregular shapes of the composite foods to be placed in storage," admitted Mr. Lund.

"Also the temperature at the center of the cabinet may be lowered to assist in reducing these temperatures in the upper regions. It is obvious that this gradient may be reduced to a negligible factor by installing evaporator coils in the top lid, but this imposes an additional cost and certain difficulties which may or may not be justifiable. It should be noted that these tests were conducted with 100° ambient air which, of course, is a condition which does not prevail at all times."

Tests were also conducted to determine the effect of refrigeration failure resulting from power shut-off, mechanical breakdowns, etc. using a 9-cu. ft. loaded cabinet at 0° F. in 100° ambient.

"The temperatures increased rapidly to above 32° for points on the inside surface of the door and 1 inch below the door," he said. "However, below these points the temperatures increased from 0° F. to approximately 32° in 32 to 36 hours and remained there for the balance of the test, or 56 hours."

Load Surface Is Danger Spot

"These temperatures would continue to remain at this point until sufficient heat had been absorbed to take care of the latent heat of the product. The danger point, however, would be the top surface of the load regardless of the height of the load because of the radiant heat effect from the lid."

"Imposing some type of a heat barrier between the lid and the load to intercept this radiant heat when failure in the refrigeration occurs will assist greatly in conserving the refrigeration at the surface of the upper part of the load," suggested Mr. Lund.

"The theoretical calculated time required for a 9-cu. ft. cabinet in 100° ambient temperature to attain the danger point of thawing is approximately 240 hours. Actually, however, the time will be less because uniform warm-up does not occur. When failure does occur and precautions are taken against excessive heat leakages, there is ample time to obtain service before the product is damaged."

In this connection Dr. D. K. Tressler, frozen food consultant, commented that even longer warm-up periods than were indicated by Mr. Lund could probably be expected if actual frozen foods and fruits were stored in the freezer instead of the ice employed in the tests described by Mr. Lund.

"Syrups in some frozen fruits may thaw at temperatures as low as 15° F., pointed out Dr. Tressler. "This thawing requires considerable latent heat which will use up some of the heat in the load. With ice the temperature is shown to rise at 32° in 36 hours or so, but with frozen fruits a much longer time would be required."

"Of course," admitted Dr. Tressler, "the fruit deteriorates in quality, but it won't be a complete loss until it hits 32°."

Temperature variations in a home freezer as the result of cycling of the condensing unit were also discussed by Mr. Lund. Stressing the fact that many factors must be considered in this problem, he reported tests where the temperature fluctuation of a loaded home freezer did not exceed 0.2° F. between the on and off cycles of the machine.

Little Temperature Variation

This test was conducted on a 9-cu. ft. chest type freezer operating at 0° F. in 100° ambient. The control differential was set at 8.5° with the control bulb located to operate on a mean temperature of the evaporator coil and the cabinet air or load. Even with no load in the freezer, the temperature varied no more than 3° between on and off cycles, according to Mr. Lund.

"Consideration must be given to control differential, control location, and reasonable cycling under all conditions of loading and ambient air conditions," he emphasized. "A control bulb located directly in the storage area will function differently when the cabinet is partially loaded or when fully loaded because of the differences in heat capacities."

"When a control bulb is located directly in the storage compartment, the temperature variation in the product follows directly the differential setting of the control. If this differential is set at a minimum for load conditions, short cycling may be expected when the cabinet is empty or the load is not in contact with the control bulb. Likewise, a wider differential will cause a greater fluctuation in load temperatures."

Mr. Lund also stressed the extreme importance of sealing the exterior cabinet walls of a home freezer against the transmission of moisture. Because of the large differential between exterior and interior temperatures considerable vapor pressure is set up so that moisture, unless adequately sealed out, will flow from the outside through the insulation.

This moisture will freeze on the outside wall of the cabinet liner,

gradually building up a wall of ice in the insulation until the temperature of 32° is reached in the gradient between the outside and inside walls. At this point the vapor will accumulate as moisture and prove harmful to the insulation.

"Too great an emphasis cannot be placed on the importance of sealing the walls of a freezer cabinet as it will be difficult to provide means for the escape of vapor after it has once entered the wall," declared Mr. Lund.

The problem of vapor transmission also enters into the decision of the home freezer manufacturer to install single or double door gaskets on lid type doors, he pointed out.

Although a double door gasket, one on the warm side and one on the cold side of a door, prevents more heat flow than does a single door gasket, the double gasket offers difficulties in connection with vapor flow.

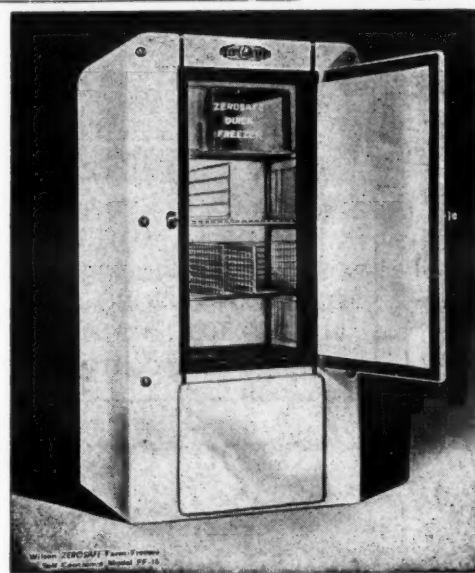
In a double door gasket insulation, there may be a tendency for frost to collect on the inner gasket, he said. The temperature of the inner gasket will be considerably below freezing, and if vapor leaks through the outer gasket it will freeze on the inner gasket. If only one gasket is employed, he pointed out, the moisture which may possibly leak through the

single gasket will tend to collect and freeze on the inner liner of the cabinet.

As a part of his discussion Mr. Lund also presented figures showing performance characteristics for freezers of 6, 9, 12, and 18-cu. ft. sizes operating in both 70° and 100° ambients. These are shown in the table below.

Performance Characteristics for Different Capacities of Home Freezer Cabinet											
Item No.	Item	Ambient temperature									
		70° D.B.			100° D.B.						
1	Cabinet capacity, cu. ft.	6	9	12	18	6	9	12	18		
2	Cabinet air temp., °F.	0.0	0.0	0.0	0.0	0.0	-1.0	-1.1	0.0		
3	Head pressure, psi.	99.0	78.0	98.0	90.0	160	136	158	152		
4	Suction pressure, psi.	7.0	5.5	5.5	5.5	7.0	5.5	5.5	5.5		
5	Cycles per hr.	3.0	5.0	2.5	2.5	3.5	4.5	3.0	4		
6	Actual running time, %	29.5	24.5	25.5	21.0	60.0	42.6	46.2	43.9		
7	Calculated running time, % ..	23.6	23.5	28.1	23.4	55.0	45.5	52.4	42.2		
8	Power consumption										
	kw hr per 24 hr.	1.12	1.70	2.0	2.34	2.47	2.99	3.55	4.32		
9	Power consumption										
	kw hr per month	33.6	51.0	60.0	70.2	74.1	89.9	106.5	129.6		
10	Operating cost per month*	0.84	1.27	1.50	1.76	1.86	2.24	2.65	3.10		

*Based upon 2½¢ per kw hr.



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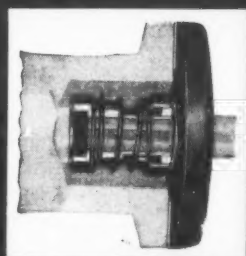
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For further information on Thermopane, special literature will be sent upon request. Libbey-Owens-Ford Glass Company, 1266 Nicholas Building, Toledo 3, Ohio.

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Where Was Chester When the Lights Went Out?

FRIEND of ours, a man whom we admire and love truly, recently wrote us a letter in which he expressed a mild protest about our diatribes against Chester Bowles and his administration of the OPA.

Writes this foreign-trade-conscious subscriber: "One has only to look around him beyond our own borders to see the terrible effects of uncontrolled inflation in almost every nation in the world. Mexico, Brazil, China, Hungary, Czechoslovakia, Greece and so on *ad infinitum*. Contrarily, all you have to do is 'look across the border' and find a nation which has sat on the lid of wage-raises and price-rises, successfully."

That statement-of-fact reveals a story. In Canada, they realize that to hold prices down, wages must be controlled, too. We aren't that bright in this country. Our Administration actually encouraged the unions to strike for unjustified higher wages. And that crazy, politics-inspired act set off the inflationary spiral in which we're caught today.

Where was Chester Bowles when the lights went out? Did we hear his voice scream out against the concept of inflationary wage-scales? No, we didn't. Chet Bowles remained silent. And yet he's the anointed saint who is supposed to be holding the fort against inflation. If anybody should have raised the roof about the strikes, it was Bowles.

Any high-school economics student realizes that when wages go up, prices must rise. Bowles is no dummy. He knows it, too. So, if he's our defender against a higher cost of living, why didn't he speak up?

As for Canada, the wonderful people who inhabit that great land have something which Americans-in-the-raw don't possess. Canadians are law-abiding. We aren't.

So it is that the black markets grow and flourish in this country, and real prices paid for goods have no relation to OPA ceilings. Anybody who thinks Bowles has controlled prices in this country ought to have his head examined.

The facts of life are that real prices are advancing rapidly. That always happens when goods are scarce and money plentiful. It's especially true in this country, which is still following the Roosevelt "throw away the dough" policy while artificially holding down production.

Bowles, who made a fortune in advertising by exploiting the "scare-people" formula, is adding to the confusion by applying the same formula to his present job. Every time he opens his mouth to issue another dire warning, housewives all over the country dash out and buy up things they don't really need. The simple facts are these:

(1) Inflation is here. Inflation always follows wars. In this country, the situation has been made worse because the government is encouraging inflationary wage demands.

(2) The only cure for inflation is to produce more and more goods, to the point where things which money can buy are at least equal to the supply of ready cash.

(3) Bowles and his OPA, by holding down legitimate prices, are holding down production. By lending silent assent to higher wages, they are increasing the supply of money. Therefore, it follows that Bowles and his OPA are stimulating the inflationary spiral.

Anybody who can't see that black-market racketeers are taking over the nation's distribution system, that wage-jumps mean price rises, that our supply of money is increasing while our supply of goods is decreasing, and that Bowles and his OPA are phonies, simply isn't thinking clearly.

It's all as plain as daylight.

One Man Campaign

Small Town Dealer Convinces Appliance Manufacturers He Should Share Equally with Metropolitan Outlets

NAMPA, Idaho—The small town appliance retailer CAN convince manufacturers that he should receive equal stock considerations with the metropolitan dealership, Vernon Horton, head of Horton Electric Co. here, believes, and has put on a one man campaign to prove it.

Certain that manufacturers do not realize that the small town market has grown swiftly in the past few years and will keep on growing if provided with sufficient merchandise, Mr. Horton early this year made a thorough study of his own market area, including Nampa's 13,000 residents and the 65,000 people in the outlying trading area.

He discovered that his market had a higher per capita income than any city within 1,000 miles and that these incomes would certainly maintain themselves for another decade because Nampa's agricultural area is an important source of food for shipment to starving nations overseas.

Armed with this information, Mr. Horton wrote aggressive "self-selling" letters to the sales managers of eight nationally known firms whose merchandise he handled. These letters asserted that Horton Electric Co. is a well-balanced, actively merchandised store which can compete with any big city operation if given sufficient merchandise. They pointed out that 65% of the country's retail stores are in small towns, doing 40% of the national sales volume. Mr. Horton indicated the high income of his potential customers and the fact that they were sold on "national brands."

Timing the letters with a national brands campaign staged by the local chamber of commerce and a national farm magazine, Mr. Horton asked for shipments of whatever merchandise was possible, to demonstrate his contention.

"The letters proved almost a bombshell to cooperating manufacturers," Mr. Horton grinned. "Most of the sales managers I addressed had absolutely no contact with the small town retailer and were delighted with the idea I presented."

"There is no question that most of them gave serious thought to the matter, for in addition to merchandise, each sent display materials and four manufacturers sent sales representatives to visit our store and to watch how the campaign worked out in May," he added.

Nearly \$5,000 in additional appliances were shipped for sale during National Brand week, Mr. Horton declared. These included two elec-



Vernon Horton, typical small town dealer, demonstrates a range to a rural prospect's family.

tric ranges, seven washing machines, 13 radios, six automatic washers, and seven vacuum sweepers.

As 7,000 visitors crowded into town during that week, Horton's sales volume shot up 500% the first day.

"Naturally, with anything at all to sell, our volume would shoot up," Mr. Horton said. "But the important thing to us is that we woke up our manufacturers' to giving us more consideration in the future. When factories begin to roll at top production, we feel we will receive a fair share of their products."

"Unbalanced distribution results in

townspeople traveling to large cities to buy new appliances, which we should reasonably sell them," he continued. "Most such people are under the impression that we do not have sufficient merchandise to give them a choice. This can be offset only by providing plenty of nationally accepted appliances at all times."

Holbrook Merrill Appliance, Refrigeration Division Moves

SAN FRANCISCO — Holbrook Merrill Co., formerly Charles Holbrook Merrill Co., has moved its refrigeration and appliance division to new and larger quarters at 370 Fourth St. here.

The new quarters feature a modern repair department, a new display floor and display window, and a model kitchen. Both gas and electrical appliances are handled.

The industrial sheet metal department remains at the old address of the firm, 330 Tenth St. here, and will operate entirely separate from the refrigeration and appliance division.

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Graduate M.E. preferred, but not absolutely necessary.

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A past record of integrity, reliability, and aggressiveness.

This is not a sales position, but a small amount of travelling may be necessary, Midwest location.

In reply give complete history of yourself, including compensation desired and recent photograph.

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cool - cooler - coolstream

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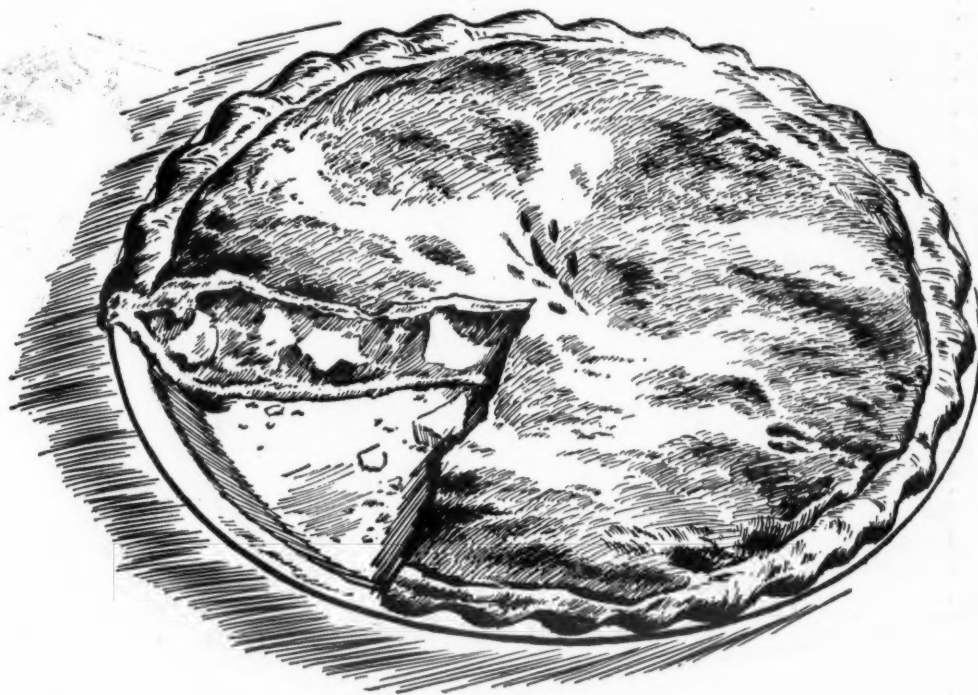
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SERVICE PARTS COMPANY
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As American As Apple Pie

JUST as apple pie is the favorite American dessert, so is contract manufacturing the American way of making more things, better, faster and at lower cost.

Contract manufacturing is known to have been profitably used in the United States as early as 1799. It was nurtured and expanded with the growth of American mass production. It flourished to an all-time high when our country needed arms of war. It is made possible by America's genius in producing precision parts that may be readily assembled even when picked at random. Contract manufacturing has become a sound and proven principle of American industry.

Hupp is an experienced contract manufacturer. Its wealth of experience in high production methods stems from more than thirty (30) years' experience in manufacturing automobiles.

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under experienced engineers and sound management. Hupp can gear itself to your production schedule.

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The PIONEER FLUID DEHYDRANT

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REFRIGERANT
LEAK DETECTOR

PARTNERS IN PURPOSE

...to keep refrigeration systems at the height of efficiency

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NEWARK 4, N. J.



OFF THE CHEST

Grand Central Station

20 Lindbergh St.
West Hempstead
Long Island, N. Y.

Editor:

Having a son who is one of your subscribers, I have followed your stirring editorials and would appreciate it if you will forward 50 copies of reprints of May 27, 1946 "What's the Matter With America."

If I can secure a permit, I would be glad to pass them out in front of The Grand Central Station, 42nd St.; for a starter will distribute them to buyers and friends.

If any charge is needed, I will be glad to contribute or pay for copies of reprints sent me.

I am not in the air conditioning or refrigeration lines, but read your editorials, because they are sound American principles.

F. S. ADAMS

Hot Under the Collar

The Crosley Corp.
Richmond, Ind.

Editor:

Your editorial of May 27 is certainly potent reading. I'm no business executive, just a secretary who was lucky enough to get the chance to read your article, and I can't think of any time I've been so hot under the collar. I'll be sure and mark this article "Important," when I give it to the boss.

I hope you don't mind my sending a typewritten copy of your editorial to the Senator... they are exactly my sympathies and heaven only knows I couldn't be as forceful in expressing my thoughts.

Your article suggests a sincerity that is almost rare today.

MRS. S. R.

Reprint in Local Newspapers

Mason Salter's
Natchitoches, La.

Editor:

Yes sir! Rush me reprints on "What's the Matter with America." I would like for you to send me reprints on all of your editorials. They are grand, and more people need to know about them. I would also like to know if you will give permission to have these editorials run in the local newspapers. Answer at once.

L. MASON SALTER

Deserves Wider Distribution

J. P. Salmini Co.
41 California St.
Bridgeport 8, Conn.

Editor:

Your article "What's The Matter With America?" appearing in your May 27 issue is the finest and bravest piece that it has been my pleasure to read.

It deserves wide distribution. Everybody reading it makes favorable comment and winds up by saying "It's too bad that it hasn't been published in several magazines having greater national coverage."

I would like to secure reprints. If you have them available, please send me at least two copies, and if there is a charge attached, send them C.O.D.

LEE J. WALLACE

Finest Expose of Current Situation

120 North 18th St.
Richmond, Ind.

Editor:

I have just finished reading your editorial "What's Wrong With America" and it is one of the finest exposes of the current situation that I've had the pleasure of reading. I only wish we had more people with such insight and courage to tell the truth as you. We need more like you and Fulton Lewis, Jr. and perhaps the people might waken up.

Will you please send me 10 copies of the editorial. I want to send them to our Congressmen with whom I'm in touch constantly.

FRANK A. SCHALK

Magnificent Piece of Writing

Admiral Corp.
3800 Cortland St.
Chicago 47, Ill.

Editor:

I have just returned to my desk and found the May 27 and June 3 copies of REFRIGERATION NEWS and I want to add my feeble voice to the peans of praise which I am sure must be pouring in as a result of your article "What's the Matter With America."

This is a magnificent piece of writing, timely and insistent. I only hope that it falls on ground fertile enough to produce seeds of action. It is apparent, that, at least, some people in this country do realize what we are in for. I began to see daylight after my year in OPA and someday a lot of people are going to wake up. Let us trust that it is not too late when this happens.

My warmest regards and again heartiest congratulations on your splendid article.

L. H. D. BAKER

Every Newspaper in the Country Should Copy It

Peerless of America
333 N. Michigan Ave.
Chicago 1, Ill.

Editor:

I am a little late in getting my congratulations to you on the article

you wrote entitled "What's the Matter with America" in the May 27 issue of AIR CONDITIONING & REFRIGERATION NEWS.

This was the most outstanding article I have ever read and every newspaper in the country should copy it. I feel exactly like you do and think that every person in the United States should get together and lick this problem that is confronting us today.

This article I know, was written right from the heart and I am glad to see that you are not afraid to print what you feel. If more editors were like you in writing their editorials, this country would be a lot better off than it is today.

Again congratulations!

M. W. KNIGHT,
Gen'l Sales Mgr.

Wider Distribution in Other Publications

Mr. Louis J. DeMayo
2907 Ocean Ave.
Brooklyn 29, N. Y.

Editor:

I have just received my May 27 copy of REFRIGERATION NEWS, and read with intense interest both your reprint of your editorial of August, 1938 and your excellent expressions of "What's the Matter with America."

The great majority of Americans are surely in accord with these expressions but unfortunately they are too indifferent to what is taking place under their very noses. They must be awakened now or else it will soon be too late.

Keep writing such editorials and expressions and try to give these writings wider distribution, in other publications if possible. In the meantime ask your readers to help spread this important information. The future of our beloved America as we knew it is in peril.

Please send me as many reprints of "What's the Matter with America," as you can spare. I'll get them around. Keep up the good work.

LOUIS J. DEMAYO

Truth and Justice for All Americans

Howe Ice Machine Co.
2825 Montrose Ave.
Chicago, Ill.

Editor:

I can in all sincerity say "Orchids to you" for your courageous editorial of May 27, headlining everything in this week's issue of the NEWS.

You are to be commended for your intestinal strength in calling a "spade a spade" with emphasis on the ultimate danger ahead if we continue our travel down the road in the direction we have been going for the past 12 years. You are correct when you say that the mess we are in is the fault of all of us.

Now is the time to let our representatives in Washington know just where we stand—the passing of laws that are fair to all people and not hurried legislation under the familiar guise of an emergency that will bring about Government dictatorship.

Only by facing the truth and doing our part to remove the parasites and leeches of labor and political leadership, which is eating away the very heart of our social and economic living, can we expect to have a Government of the people—by the people—and for the people.

Yours for truth and justice for all Americans.

H. B. HOWE,
President

Great Job for Country and Democracy

Doherty-Stirling, Inc.
Baton Rouge, La.

Editor:

For many months now when I go home at night, I do not worry about my business, which is a nightmare.

(Concluded on Page 15, Column 1)

This Groove Makes the Difference

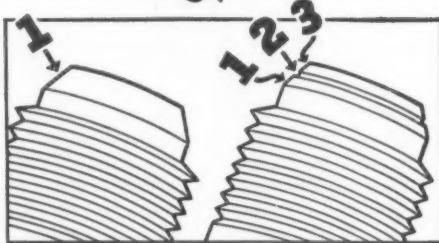
Gives You Joints with Triple-Seal Tightness



This groove in Imperial Triple-Seal Flare Fittings brings you triple-seal tightness in every joint... an extra protection against leakage.

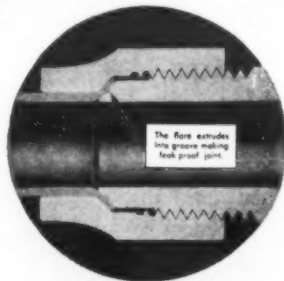
When the flare is drawn against this groove, the copper tubing is extruded into the groove making a tight, self-sealing joint. Here is the joint that remains leakproof even though the face of the seat may be nicked or marred.

This extra seal of safety is a *plus* feature given to you only by Imperial Triple-Seal Fittings—added to the same excellent S.A.E. refrigeration type flare fitting you have previously used—and costs you no more! Incorporated on all sizes $\frac{3}{8}$ " and larger.



(Left) Ordinary flare fittings have only one seal.

(Right) IMPERIAL TRIPLE-SEAL FLARE FITTINGS have three seals to give you new, extra protection against leakage.



See
Your
Jobber

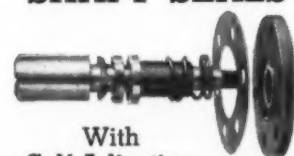
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IMPERIAL

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Self-Adjusting
Sleevelock.



Only Chicago valve
plates have replace-
able seats.

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20 NORTH WACKER DRIVE • CHICAGO 6, ILL.



OFF THE CHEST

(Concluded from Page 14, Column 5) but about what is happening to our country. It would be complete depression if it were not for the few voices as yours that cry out in the wilderness.

Your editorial "What's the Matter with America" in the May 27 edition of the AIR CONDITIONING & REFRIGERATION NEWS is "In tune with the times" completely and if not heeded in time it may be too late.

A start has to be made somewhere. Two states now have the "Open Shop" law. The Louisiana State Legislature is now in session in Baton Rouge debating this question. I say it is time to stick your neck out if you have one.

You say that 100 reprints are available for each subscriber. We pay for three subscriptions. Should we be entitled to 300 reprints please rush them to us and we will get them into worthwhile hands. Advise also if permission will be granted for publishing of this editorial.

You are doing a greater job than you may think for our country and democracy.

LEWIS S. DOHERTY

Should be Read by Every American

Frigidaire Sales Corp.
714 N. Broadway
Oklahoma City 2, Okla.

Editor:

Your editorial entitled "What's the Matter with America?" should be read by every man, woman, and child in America.

Do you plan to reprint it? If so, let us know. I would like to distribute a number of these in our territory.

D. T. HAYWARD,
Manager
Oklahoma City Branch

Something Should be Done Quickly

E. H. Schaefer Co.
Milwaukee 3, Wis.

Editor:

Your editorial of May 27, in REFRIGERATION NEWS is wonderful.

If Congress had your vision and foresight, I believe it would be only a very short time before something were done to change the Wagner Act and the Norris-LaGuardia Act. I agree with you that something should be done quickly.

I also feel confident that if everyone took your advice and wrote their respective Senators and Congressmen, these statutes could be revised to benefit the greatest number of people.

Keep up the good work, and eventually things should improve. I will do my part to help.

E. H. SCHAEFER

Editors of Local Newspapers

Commercial Refrigeration
Oregon Pike, P. O. Box 306
Lancaster, Pa.

Editor:

I am only a small fish in this mighty pond of business, as such I am compelled to hustle for my living plus the pursuit of happiness which I believe I am entitled to. However I do take the time to read your valued editorials, and the one, "What's the Matter with America?" issue May 27, shows us exactly where and how we as businessmen are failing.

I would appreciate a dozen or so reprints if still available. I plan to give them to the editors of our local papers and several leaders in industry in our community.

ROY A. DREISBACH

Every Newspaper in the Country

Pettyjohn's
P. O. Box 395
Knoxville, Tenn.

Editor:

Please mail me 100 copies of "What's the Matter With America." I want to distribute them around to intelligent people who can and better do something about it. George Taubeneck knows what he's talking about, and it's time (later than most people think) to act. This should be put in every newspaper in the country.

JOHN G. PETTYJOHN

Americans Need to Be Awakened

Georgia Power Co.
P. O. Box 1719
Atlanta 1, Ga.

Editor:

I think your front page editorial in the May 27 issue of AIR CONDITIONING & REFRIGERATION NEWS was an excellent one, well written, and let's have more like it, because we Americans need to be waked up to what is happening. Your regular column was interesting and informative and I enjoyed it also. Please keep needing us for we need it. More power to you.

W. B. FARNSWORTH
Mdse. Mgr.

Heartily Endorses Recent Editorials

The Harry Alter Co.
1728 So. Michigan Ave.
Chicago 16, Ill.

Editor:

I would like to have 100 copies of your editorial on "What's The Matter With America?" and also your "Trader versus Planned Economy" editorial.

I also wish to say that I have been reading your editorials with a great deal of interest and heartily endorse them.

IRVING ALTER

Raise a Holler

27 Reid Ave.

Port Washington, L. I.

Editor:

Your article on the front page was excellent—to the point—and desperately needed.

I hope it gets everyone to write to their Senators and Congressmen as I have, for the first time—RAISE A HOLLER.

We keep hoping that through slow democratic processes Congress will eventually even the score and the pendulum will swing less violently until it resumes a more normal orbit.

But this time I agree—we must help by raising our unorganized voices.

ALEXANDER L. MUNSON

Every Thinking Person in The States and Canada

214 King St., W.
Toronto, Ont., Can.

Editor:

Your offer to send reprints of the editorial "What's the Matter with America?" in the May 27 issue, prompts me to ask for a dozen copies.

A. R. HARPER

P.S.: This should be read by every thinking person in the States and Canada. It's splendid.

Courageous and Outspoken Analysis

D. E. Sanford Co.
976 W. Peachtree St.
Atlanta, Ga.

Editor:

That editorial of yours, "What's the Matter With America," in the May 27 issue of your very excellent paper, expresses most forcefully and

factually the sentiments and feelings of millions of Americans.

I compliment you on your courageous and outspoken analysis and warning coming as it does just at the time when the President is considering vetoing the Case Bill which the Senate finally dug out of Committee and passed.

Keep swinging, George, Pegler needs more support.

H. A. PENDERGRAPH

Finest Thing of Its Kind

Meat Merchandising
105 South Ninth St.
St. Louis 2, Mo.

Editor:

I have just finished reading your inspired editorial, "What's the Matter with America."

It is the finest thing of its kind I have ever read anywhere.

JOHN L. HOPPE,
Publisher

Answer to Frustration

Servel, Inc.

51 East 42nd St.
New York 17, N. Y.

Editor:

I know you must have received a good many comments on "What's the Matter with America?" Here's one more note to add to the list.

Needless to say, our thinking is in accord, and at the same time, along with many others, I feel frustrated when it comes to trying to do something about it to help conditions.

Of course we are supposed to write to our Congressmen, but there should be something more effective we could do besides that. Not knowing the answer, I am taking the liberty of sending your editorial from the May

27 AIR CONDITIONING & REFRIGERATION NEWS to the Honorable Joseph Clark Baldwin, Congressman from my district.

Best regards, and carry on!

WM. R. HAINSWORTH,
Vice President

Send Reprints to Washington

Federal Supply Co.
120 East Main
Oklahoma City 2, Okla.

Editor:

We think you have a wonderful editorial entitled "What's the Matter with America?" in your May 27, 1946 issue.

Will you please send us marked for the attention of the writer about 12 copies of this issue.

We want to send these to some of the politicians in Washington in accordance with instructions and suggestions in the article.

LOUIS LOEFFLER, JR.

Spreading Them Far and Wide

Robert N. Eck
4828-N. Woodruff Ave.
Milwaukee 11, Wis.

Editor:

If I'm not too late please mail about 25 copies of "What's the Matter with America" to me so that I can spread the truth to some of the uninformed and misinformed. I watch for your editorials and am all for spreading them far and wide.

ROBERT N. ECK

515 Linden St.
Scranton 3, Pa.

Editor:

Your editorial "What's Wrong with America?" is tops. I am writing my Senator today.

HARRY C. GLOU

"UNMATCHABLE"

Eleven years of continuous service
to this leading southern distributor
with satisfaction on both sides

"Your new financing plan is
by far the most attractive we have been privileged
to operate under. We commend it to all dealers
handling retail paper."

"It has certainly been a pleasure, and very profitable
to us to have had Commercial Credit Corpora-
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COLD PLATES

For Maximum
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46-76 Oliver Street • Newark 5, N. J.
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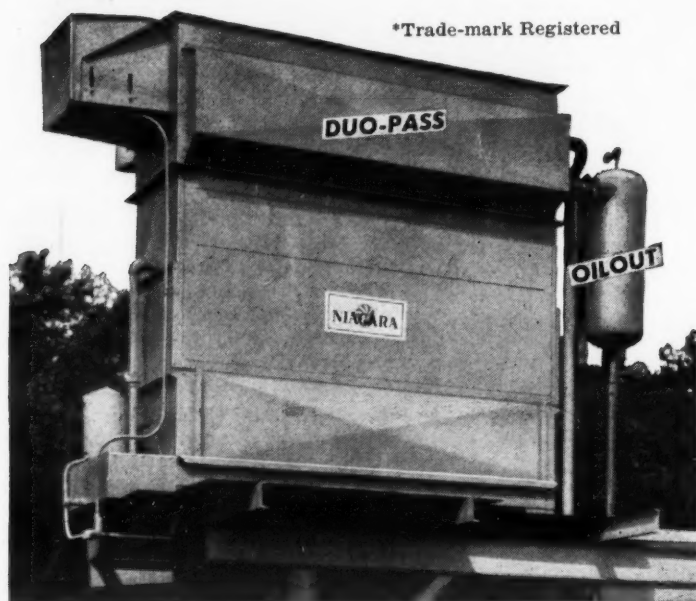
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COMMERCIAL CREDIT COMPANY

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Only the patented NIAGARA Duo-Pass Coil makes this gain permanent because no other evaporative condenser lowers condensing temperatures to the point where deposits do not accumulate on condenser tubes. This does away with loss of time for cleaning and assures always full capacity. Write for Bulletin #91. Address Department AC-66.

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Refrigeration & Air Conditioning Directory? . . . Price \$1*

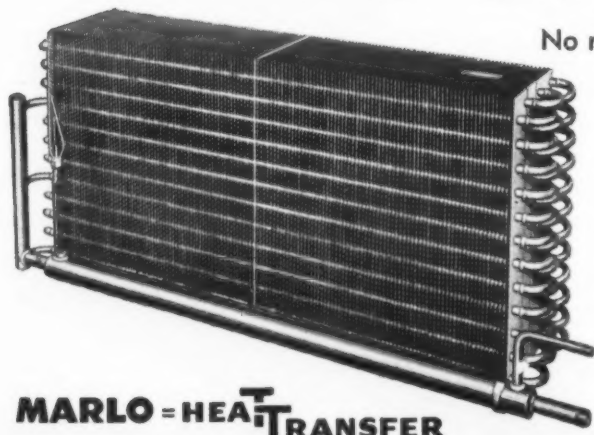


Don't Let **DEMON HEAT** Wreck A Refrigeration System!

It takes fast, efficient heat transfer to keep Demon Heat in check. He thrives on sluggish, slow heat transfer.

The performance of refrigeration equipment depends largely on the efficiency of the coils. For best results, specify Marlo "BALL-BONDED" Fin Coils—your guarantee of swift, high-capacity heat transfer that stays efficient.

No refrigeration system is better than its coils. Rely on



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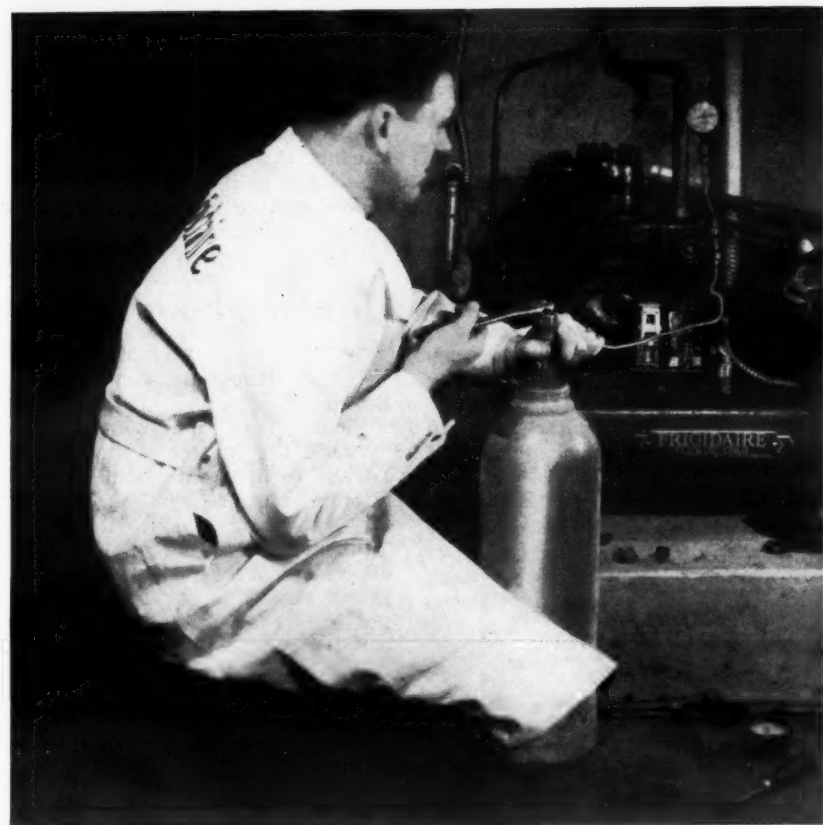
MARLO COIL COMPANY

ST. LOUIS 10, MISSOURI

Servicing Commercial Refrigeration Systems

Instalment No. 13

38—Add Refrigerant and Check for Leaks

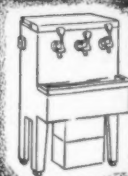
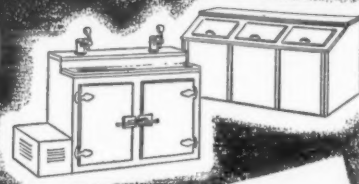


For any call where there is a shortage of refrigerant, add refrigerant and check for leaks. When adding refrigerant be sure to add the right kind.

And never add refrigerant without locating and stopping the leak from which the previous charge escaped.

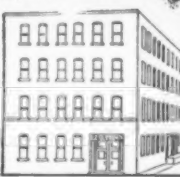
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**BEER
DISPENSING
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R. PERLICK

BRASS CO.
3110 W. MEINCKE AVE.
MILWAUKEE 10, WIS.

Meat Packers Use Air Diffusers to Give Maximum Storage Room Air Circulation

By Leonard R. Phillips, Consulting Engineer, Anemostat Corp. of America

Efficient preservation of perishable products in refrigerated spaces is vitally dependent on the maintenance of uniform temperatures, humidity, and air motion. Refrigerating engineers have long been seeking closer control over these critical factors, but only comparatively recently has an answer to this problem been tested and approved.

The product spoilage caused by excessive air motion in cold storage spaces originally led to the false assumption that all air motion in such rooms was harmful. It is now recognized, however, that if circulating refrigerated air is distributed uniformly throughout a cold storage space, spoilage will be greatly reduced.

Uniform air distribution equalizes temperature and humidity, eliminates drafts and air stratification, and prevents the formation of dead air pockets.

A means of assuring uniform air distribution, therefore, is needed for the efficient refrigeration of perishable products. Men who sell, install, and service commercial refrigerating systems are fully aware of the desirability of more uniform refrigeration, but many apparently do not know of the recent progress that has been made in this direction, particularly by the meat packing industry.

No industry exceeds the meat packing industry in its needs for and demands upon refrigerated spaces. With this industry these needs are so varied and the demands so exacting, that if the conditions within a refrigerated space meet the requirements for the proper preservation of meat products, these conditions will most assuredly meet the requirements for the preservation of other perishable products such as fruits, vegetables, and fish.

Experience has shown that if refrigerated air is to be circulated in a meat storage room in such a way as to assure the best possible meat preservation, the refrigerating system must meet the following specifications:

(A) A refrigerating system must circulate a relatively large quantity of air, because the larger the number of air changes, the better the guarantee of uniform conditions in the storage rooms.

(B) This large quantity of air should be introduced in the rooms in such a manner that the velocity of air motion coming into contact with the product is low enough to avoid unnecessary shrinkage.

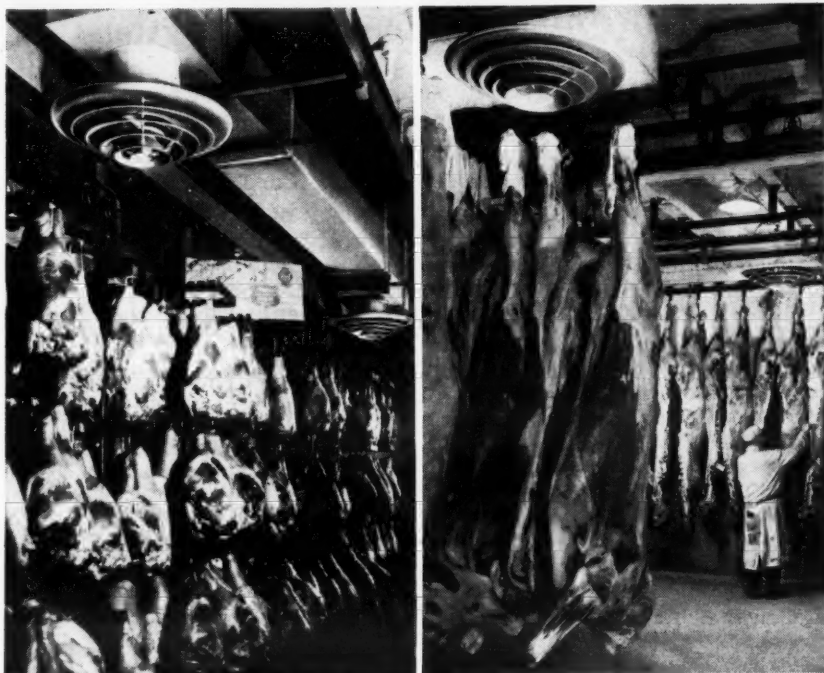
(C) Air motion should be uniform in every part of the room.

(D) Air motion should be largely vertical to ventilate the spaces between the meat even when pieces hang closely together.

(E) Under the top level of the product there must be enough turbulence in the air motion to ventilate under the flaps, skirts, and in the crevices of the product.

(F) The air motion along the ceiling should be sufficient to prevent wet spots and dripping.

Ideal refrigerating conditions will result if the above specifications are met, provided that air of the proper



Shown above are examples of how Anemostats helped two meat packers solve their storage problems. At left the "ham holding room" of Stahl-Meyers Brooklyn plant where temperatures are equalized at 45° F. At right, the "beef chilling room" of the Siegal Weller Packing Co. in Chicago that maintains a temperature of from 30° to 35° F.

temperature and humidity is introduced. One excellent means of achieving these conditions is to discharge refrigerated air into the storage room through the Anemostat air diffuser. It has been found that the special types of Anemostat built for meat storage purposes fully meet these specifications.

These diffusing units allow low velocity air motion in the refrigerated enclosures under the top level of the product, even if the number of air changes are as high as 100 per hour. The Anemostat distributes the air evenly in each part of the room.

The air flow has a vertical pattern, resulting in satisfactory circulation even in the close spaces between the products. And yet the device causes enough turbulence in the air motion under the top level of the product to get into all the crevices, and sets up enough air motion along the ceiling to prevent dripping and wet spots.

Since these air diffusing units assure better meat preservation, why are they not universally adopted by meat packers and other users of commercial refrigeration? Part of the answer is that air diffusers are obviously not applicable to the coil bank system, the refrigerating system still commonly used in the meat packing industry and commercial cold storage rooms.

The coil bank system employs the gravity principle of air circulation, and in this system no attempt is made to control the air motion and air distribution within the room.

The coil bank system is inefficient for two reasons.

First, due to the slow air motion through the coil bank, the heat absorbing capacity of the coil is at a minimum. Second, due to the arrangement of the coil, the control of the motion and distribution of the

air is impossible, and unequalized temperatures and stratification are unavoidable.

Unit coolers utilize the extended

coil surface which enables the concentration of large quantities of coil surface into relatively small spaces. All odor and flavor laden condensate is confined to an isolated compartment which is easily cleaned, so that any accumulated bacteria infested slime within the unit is easily avoided.

Any necessary defrosting of the coil is done in a sanitary chamber which prevents moisture from reaching any portion of the room, and such defrosting is effected without serious interruption to refrigeration.

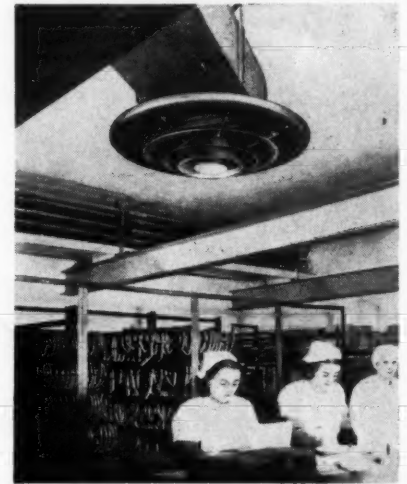
Air diffusers can be attached to the outlets from the ducts through which unit coolers send refrigerated air into a meat storage space. When refrigerated air passes into a meat storage space through Anemostats, it is distributed uniformly throughout all crevices and interstices in and around meat pieces—without drafts. Temperature and humidity are closely equalized throughout the refrigerated space.

As the Anemostat enables large volumes of cold air to be evenly and gently distributed in meat storage spaces, spoilage of meats is greatly reduced. Dehydration and shrinkage are materially reduced. Slime and mold formation is greatly retarded, discoloration is stopped, and natural bloom is thereby preserved.

The unique patented construction of the Anemostat enables the unit cooler equipped with these devices to supply draft free air to a meat storage space, in spite of the limited distance between the meat pieces and the ceiling air outlets. This air diffuser discharges incoming air in a multiplicity of streams in a variety of directions.

The metal cones composing the Anemostat are formed in such a way

Model 'B' Permits Work



This Stahl-Meyer New York plant use the Type B Anemostat which so regulates temperature and humidity as to permit employees to work within the meat chilling room.

that the passage of air through them siphons a series of counter currents of storage room air back into the cones. These multiple counter currents carry room air equal to about 35% of the incoming refrigerating air into the diffuser, where it is mixed with the incoming air stream.

When refrigerated air is discharged in this manner, incoming air is pre-mixed with room air within and in the immediate area of the diffuser itself. Thus when the air from the unit cooler reaches the meat pieces, it is already mixed with the surrounding air and the air motion is so regulated as to cause no damage to perishable products.

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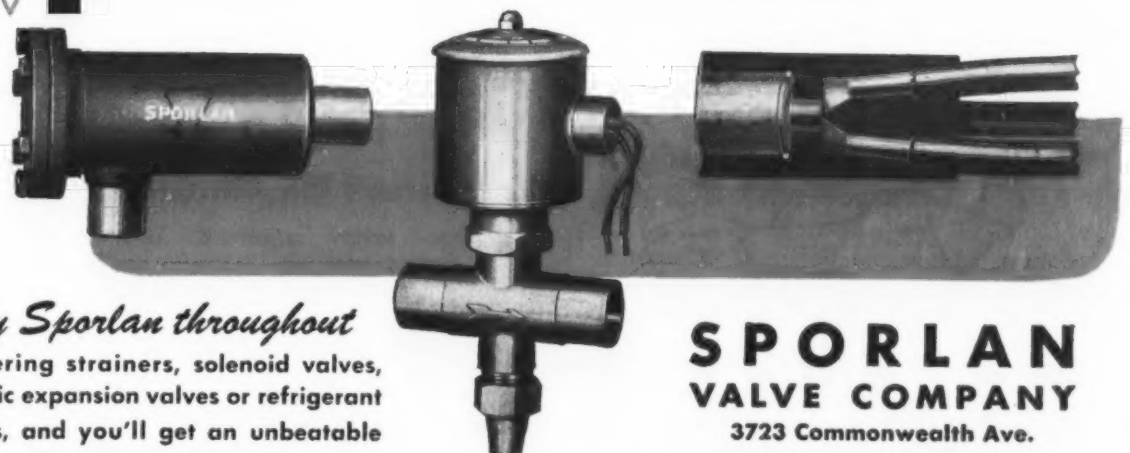
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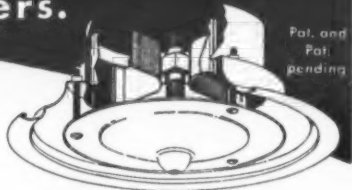
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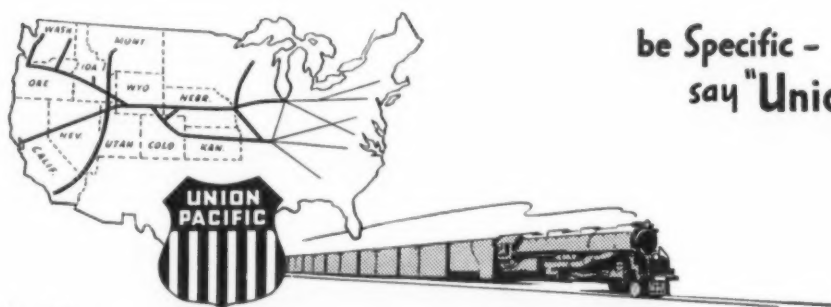
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Engineer Describes Activated Carbon's Function in an Air Recovery System

Canisters of Special Design Are Employed for Installation of Carbon in Conditioning Systems

Editor's Note: This is the second of a series of three articles in which the theory and the practical applications of activated carbon in air conditioning systems are discussed in detail by Mr. Munkelt of the W. B. Connor Engineering Corp., a pioneer in the use of the carbon air recovery systems. In this instalment the function of the activated carbon is described and design calculations outlined for some applications.

By F. H. Munkelt, Vice President, W. B. Connor Engineering Corp.

Heart of the air recovery equipment as manufactured by the Connor company is the canister, which consists of an inner and outer perforated cylindrical shell, the annular space between which is completely filled with activated carbon, settled to maximum density by mechanical vibration. The canister is closed at the top but has a circular central opening at the bottom which registers with a hole in the supporting manifold plate into which the canister fits.

The spacing of the canisters on each manifold plate is uniform in both directions and the distance between adjacent canisters is precisely fixed to insure uniform airflow through the entire exposed area of each canister. The required number of canisters per manifold plate may be arranged in whatever number of rows can best be accommodated in

the available space.

The canisters are of three standard sizes, each with a different carbon bed thickness, which, in turn, is dictated by the nature and degree of air contamination for which it is to be used. While the position of the manifold plate or plates is optional, the most practical position, when space conditions permit, is either horizontal or sloping at an angle of about 14° from the horizontal.

By adopting this sloping position of the manifold plate the air entry and exit openings of the assembled unit are staggered vertically with respect to each other and a consequent reduction in over-all height is achieved. The height of the air entry and exit openings above and below each manifold plate must be adequate to insure uniform distribution of the air proportionately through each canister.

Some Alternate Arrangements

When physical limitations of space, location, direction of airflow, and the like make the standard assembly impractical, alternate arrangements such as placing the manifold in a vertical position, with the canisters extending horizontally, or suspending them from the under side of the manifold plate, can be employed to meet these exigencies.

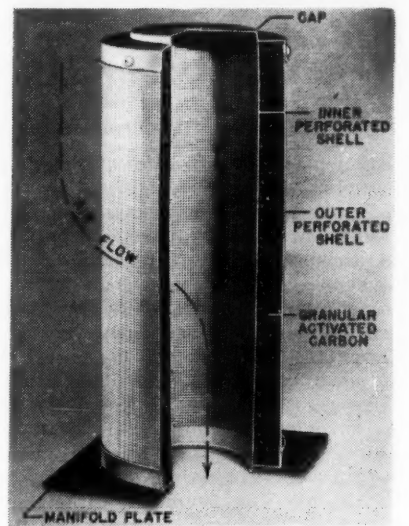
Dorex Type G units are rectangular panels with over-all dimensions comparable to standard dust filters. Each panel contains one or more rows of evenly spaced, perforated, carbon-filled tubes housed in a metal frame. Their compact design and the ease with which they can be installed makes them equally adaptable both to existing systems without requiring expensive alterations and to newly designed systems, particularly where space is at a premium. They are also adapted to incorporation in "package" conditioners, unit heaters, and cold diffusers.

Panel Partially Purifies

Where canisters purify all the air that passes through them, the panels are designed to purify a definite percentage of the air. This percentage is dependent upon the number of rows of tubes and their spacing. These units may be used to advantage in the air conditioning, heating, or ventilating systems of hotels, offices, stores, theaters, ships, homes, apartment houses, railway cars, buses, airplanes, or wherever odors primarily generated by normal human occupancy and activities are to be removed.

As mentioned earlier, in instances where conditioning equipment is already installed and the outdoor air is at an irreducible minimum obviously no saving, per se, in equipment or operating costs is possible. However, carbon air recovery equipment can step up the efficiency of such a system by improving air quality. A good case in point is the application of G panels in the transportation field. One of the most stubborn problems faced by designers of air conditioned railway cars has been how to provide adequate car

Canister Diagram



Note how the air must pass through a uniformly thick bed of activated carbon.

ventilation while still maintaining comfortable temperatures.

Railway cars must carry their conditioning plants "on their backs"—each car having its own individual system. Limitations of power, weight and, particularly, space for the apparatus restrict the air circulating capacity for the average 64-passenger coach to between 2,000 and 2,400 cu. ft. of air per minute of which, for the same reason, not more than 25% or 500 to 600 c.f.m. can be outdoor air make-up, the balance being recirculated.

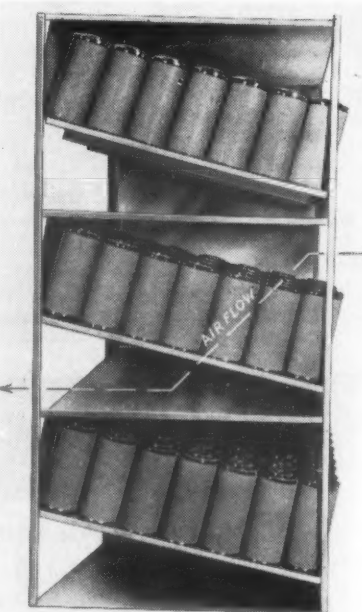
Cuts Fresh Air Volume

This means that less than 10 c.f.m. per minute (usually nearer 7½ c.f.m.) of fresh air per occupant is provided whereas, by recognized ventilation practice for such dense occupancy, the very minimum that will maintain agreeable air quality is 15 c.f.m. per non-smoking and 30 c.f.m. per smoking passenger. The problem is aggravated in dining, club, and lounge cars where the accumulation of odors from food, beverages, and smoking requires a ventilation rate equivalent to 30 c.f.m. or more per occupant yet no greater conditioning capacity is permissible.

Railroad air conditioning engineers have long known that adequate ventilation—sufficient fresh air—offers the only cure for these conditions but, if fresh air must be exclusively outdoor air, the conditioning load it imposes becomes prohibitive. In other words, over and above carrying the fixed internal load (heat gain or loss, radiation, infiltration, etc.) the conditioning plant that can be accommodated (7 to 8 tons of refrigeration)

(Continued on next page)

Typical Assembly



Indicated above is the direction of air flow through an assembly of Dorex activated air recovery canisters.

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Design Calculations Show How Activated Carbon Operates in Air-Cooled Rail Cars

(Continued from preceding page)
eration capacity) is adequate for only an outdoor air load not exceeding 25% of the total air.

Activated carbon provides the solution—one that is being rapidly adopted by railroads and car builders alike. By converting recirculated air to fresh air in an amount sufficient to compensate for the ventilation deficiency, Dorex, in effect, provides ventilation without charge. With few exceptions the panels fit into space that is already available in present car designs, installation and handling being comparable to an added stage of dust filters.

Following is a typical example of their ability to provide adequate ventilation in a railway car carrying an average of 64 passengers, smoking permitted:

STANDARD VENTILATION REQUIREMENTS FOR COMFORT

1/2 passengers smoking (22 x 30 c.f.m.)	660 c.f.m.
3/4 passengers not smoking (42 x 15 c.f.m.)	630 c.f.m.
Total ventilation air supply needed	1,290 c.f.m. ÷ 64 = 20
Each of the 64 passengers needs at least 20 c.f.m. of fresh air.	

WITHOUT CARBON AIR PURIFICATION

75% recirculated stale air	1,800 c.f.m.
25% fresh air ventilation	600 c.f.m.
(600 c.f.m. ÷ 64)	

Each passenger gets 9.4 c.f.m.
of fresh air—about half as much
as needed.

WITH CARBON AIR PURIFICATION

25% fresh air ventilation	600 c.f.m.
50%* of the recirculated air recovered and converted to ventilation air	900 c.f.m.
1,500 c.f.m.	
(1500 ÷ 64)	

Each passenger gets 23.4 c.f.m.
of fresh air.

*Adequate percentage in this case.
Percentage can be raised or lowered
by installing panels to suit car
requirements.

One of the most unusual of the
many and diverse uses of carbon air

purification during the war, and one that dramatically illustrated the ability of activated carbon to cleanse the air of odors, was in hospital planes. A problem involved in the ventilation of such planes was isolated sources of offensive odors which would permeate the entire cabin. No other method of ventilation could eliminate these odors without creating large air movements which would be undesirable.

A satisfactory solution was provided by the development of an individual litter unit which, where a patient had an odorous wound or disease, could be placed under the blanket or coverlet near the source of odor generation. This unit consists of a single carbon-filled canister, blower, flexible rubber tube and electrical connection. Creating a slight negative pressure, easily tolerated by the patient, the blower draws the air through the canister and discharges it, odor-free.

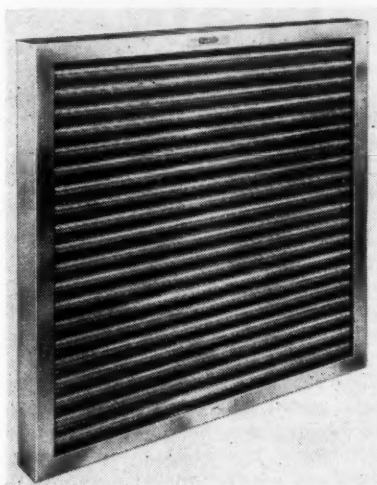
Where Outdoor Air's Scarce

Type G Panels are frequently used in "package" conditioners, especially when recirculation is 100%—normal infiltration being depended upon for oxygen replenishment—because outdoor air is either inaccessible or polluted. A specific instance was the incorporation of G panels in two 5-ton, 2,000 c.f.m., all-year conditioners serving a long narrow, densely occupied office where the sole source of outdoor ventilation air would have been from an odorous alley.

Sufficient ventilation was obtained by recirculating the entire fan volume of each conditioner through G panels of sufficient capacity to convert 35% of the recirculated air to fresh air. The normal ventilation demand, if outdoor air had been used, would have been 1,000 c.f.m., or 25% of the total fan volume. The panels actually converted 35% of the total air into fresh air, thus supplying 1,400 c.f.m. of fresh air to the office.

If 1,000 c.f.m. of outdoor air had been used for this purpose (if fresh air had been available) the outdoor air load would have been 3.72 tons and the cooling effect curtailed accordingly. In addition to operating during both cooling and heating seasons the blowers of these units are also operated between seasons to

Panel Type 'G'



Adaptable to central systems, "package conditioners," or unit heaters, the type "G" panel is made with from one to three rows of carbon-filled tubes.

control air quality by constantly recirculating the air through the carbon panels.

Activated carbon has also been successfully applied to maintain air quality in frozen food locker plants and refrigerated warehouses. Air sanitation is an important essential in this type of storage. Foods in storage give off flavor esters and decomposition gases which are often transferred to other foods.

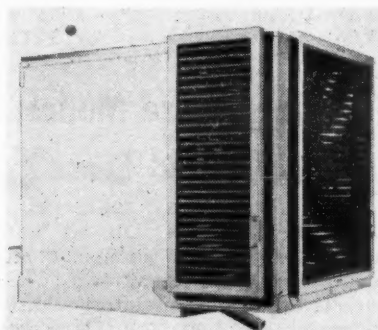
In locker rooms meat, fish, vegetable, and even tobacco odors have a tendency to linger. Complete airing of these areas would flush out accumulated odors but this method is impractical because of the in-

creased load it imposes on the refrigeration equipment and, under certain circumstances, the possible hazard of air-borne pollution from the outside.

Special equipment consisting of canisters or tubes and fans or blowers has been developed for this type of application. Most widely used has been the portable Type "SQ" model.

A hazard in apple storage is the tendency of the stored apples to develop "scald" or burning of the skin, and to lose firmness during protracted storage. The U. S. Department of Agriculture found that the first was caused by an accumulation of certain gases, as yet unidentified, around the apples. Loss of firmness is due to ethylene gas given off by the ripening fruit itself. For many years oiled paper was recommended as a control, either as a wrap or as shreds mixed in with the fruit to adsorb the gases.

Because growers were dissatisfied with this method, the Cornell University Agricultural Experiment Station began research with activated carbon to purify the air within the



Some Dorex air recovery panels attached to a cold diffuser for refrigerated storage use.

Installing Canisters

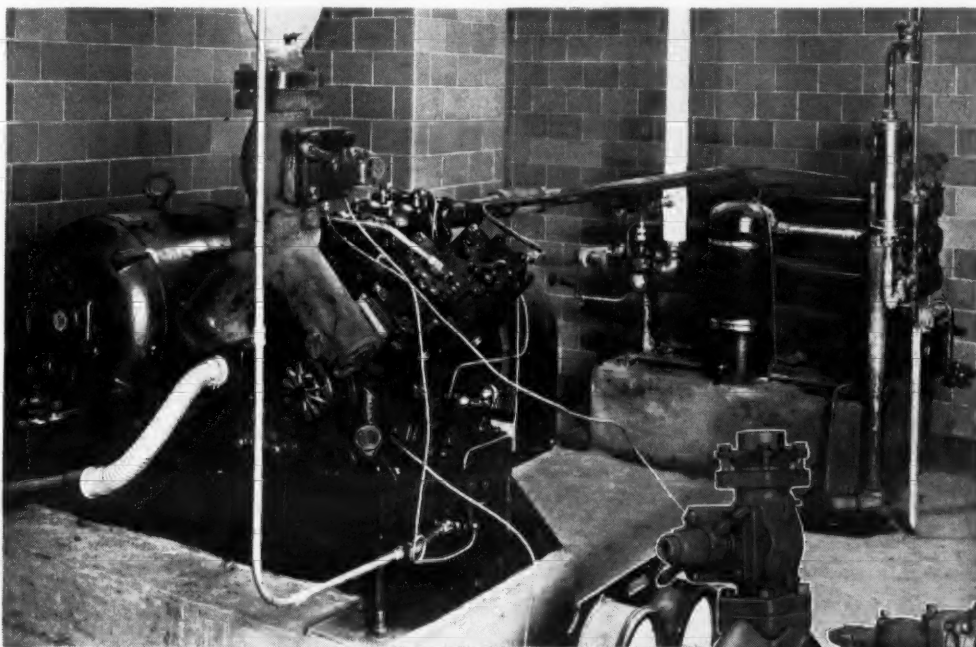


The photo above illustrates how easily canisters may be installed.

storage space. The success of the experiments and subsequent test installations has been so pronounced that these two costly nuisances appear to be thoroughly overcome.

Again reverting to the "savings" afforded by the use of activated carbon, its use in refrigerated apple-warehouses means an increase of several months in storage life and one authority estimated that storage profits are greater by 25%. When this figure is contrasted with an initial cost of between 6 cents and 7 cents per bushel in the average warehouse and an annual upkeep (reactivation) cost of a fraction of 1 cent per bushel the "savings" here through carbon purification cannot be considered negligible.

(To Be Continued)



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The Eight-cylinder—30 H.P. model shown in the illustration has been in operation, providing trouble-free service for almost two years—at the Evansville State Hospital, proving the reliability of these advanced engineering features. Two large storage rooms are held at zero temperature and one room at -20°F., using a 30 H.P. Motor operating at 1200 R.P.M.'s.



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15 to 50 Horsepower

SCHNACKE Compressors are built in a 4 Cylinder Model adaptable for use with 15, 20 and 25 H.P. motors, and an 8 Cylinder Model for use with 30, 40 and 50 H.P. motors. Illustrated above is the 8-cylinder model, SF308.

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Canvas Covered Frozen Food Hamper Designed

BUFFALO — Designed to keep small quantities of food frozen while in transit, and claimed to keep frozen foods for nearly a week, a canvas covered, cork insulated hamper has been developed by Jewett Associates here.

Known as the Jewett "Arctic Hamper," this container permits the use of dry or natural ice to pack fresh foods or beverage. Designed to fit on the floor between the front and rear seats of a passenger car, the hamper can be employed to carry frozen foods home from a locker, to bring home fish or game, or to carry picnic lunches, the manufacturer says.

A new slide fastener top provides easier and quicker opening and closing to conserve the dry or natural ice and cold air inside, the company asserts. It permits the top to be padlocked during shipping by express or as baggage, it is said.

To keep the contents out of ice water, a false bottom is fitted into the hamper. It may be adjusted up or down or removed entirely, the manufacturer states.

A valve draws off the accumulated ice water when natural ice is used. If dry ice is employed, the false bottom becomes unnecessary.

The heavy canvas jacket is said to be practically waterproof and mildew proof. The galvanized liner, surrounded by ground cork packed in under 1,500 lbs. pressure, equals corkboard for insulation efficiency according to government standards, the company claims. A 2-inch water proof pad in the top cover doubles the insulation at the point of greatest need.

The Arctic Hamper comes in two sizes: 31 x 16 x 14 in. outside and 25 x 12½ x 9 in. inside; and 22 x 20 x 13 in. outside with 15 x 15 x 8 inside. The larger size sells for \$34.95 and the smaller for \$27.95.

New Deepfreeze Model Fits in Limited Space

NORTH CHICAGO, Ill.—A home freezer designed for smaller homes, apartments, and locations where space is limited, is the latest addition to Deepfreeze line, the Deepfreeze Division of Motor Products Corp. here has announced.

The new freezer, known as Model A4-46, has a capacity of 3.66 cu. ft.

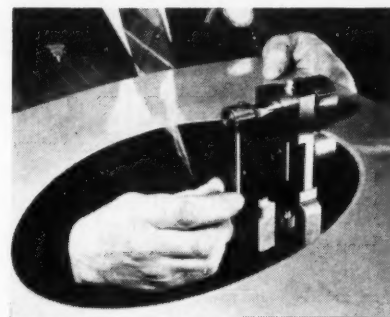
What's New

Metal Crimping Device Halves Operation Time

BALTIMORE — A sheet metal crimping device, which operates very similarly to the crank type can opener, has been perfected by Frank Lucarelli, tool designer of the Glenn L. Martin Co. here.

The crimping device will crimp sheet metal up to 16-gauge either at the bench, on the job, or after installation. It works equally well on straight edged metal, sheets, or pieces curved to any shape, on the inside of blanked-out holes or wherever crimping on sheet metal may be required, the company claims.

The tool consists of two round dies, one with a projecting edge, the other rounded to fit. They are held to-



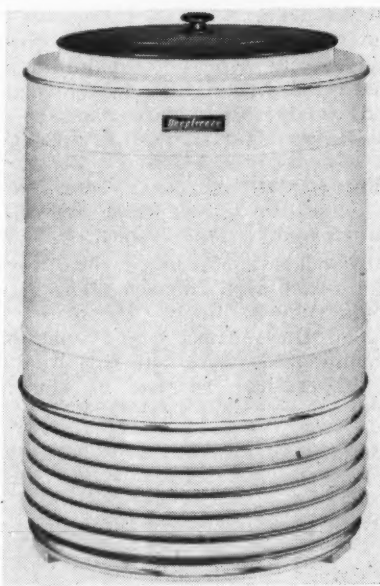
gether by spring tension and an adjustable screw fits them for various thicknesses of metal.

Turning a crank pulls the metal sheet between the dies. Held firmly against a guide, the edge of the metal is crimped to the desired shape. No more physical strength than is necessary to open a can of food in the kitchen is required for the operation, which takes only half the time any other hand tool would take to do the job, the company says.

The tool may be operated by clamping it in a bench vise. By substituting a wheel for the conventional handle—with little sacrifice in leverage—it can also be used right on the piece needing crimping after the piece has been installed.

Ratchet wheels may be installed in the device so that there is no slipping, because, being small and handling only the thinner sheets of metal, the gears will not unmesh sufficiently to become separated.

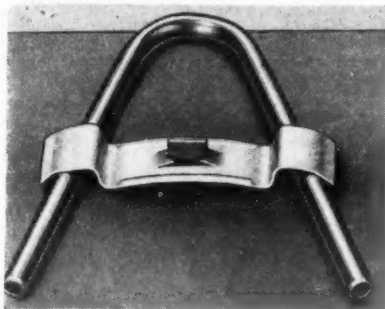
The company pointed out that other crimping devices which must be pulled around the edge of the metal by sheer strength sometimes slip off and cause a nasty gash on the operator's arm. This hazard is entirely eliminated in the Lucarelli device.



Refrigerant Tube Speed Nuts Eliminate 'Crazing'

CLEVELAND—Two push-on type Speed Nuts for the installation of ¼ in. refrigerant tubes to the inner liner of a refrigerator without "crazing" the enamel, have been introduced here by Tinnerman Products, Inc.

In order to fasten the nuts in place the studs are spot-welded in



position before enameling the inner liner of the refrigerator. Then, the refrigerant tubes are moved into place on the liner and the Speed Nuts zipped over the stud, thereby clamping down two tube ends under firm, spring tension. Ends of the Speed Nut are so formed that they permit tubes to be held in parallel or zig-zag position.

'Reynalite' Aluminum May Have Refrigeration Uses

RICHMOND, Va. — "Reynalite," described as a lightweight, high-strength, economical aluminum building material which can be produced in large quantities, has been developed by the Reynolds Metals Co. here, and may have some applications in the refrigeration and air conditioning field.

Reynalite combines two sheets of aluminum bonded with a plastic adhesive to a cellulosic core, Mr. Reynolds said. It forms a panel which is said to possess permanent rigidity, thwarts harmful elements, is easily worked and is adaptable to a number of uses in building construction and related fields. It is impervious to moisture and temperature changes.

Among the uses suggested for Reynalite are refrigerator linings, electrical cabinets, air ducts and heat ducts. Other possible uses include construction of walls, ceilings,

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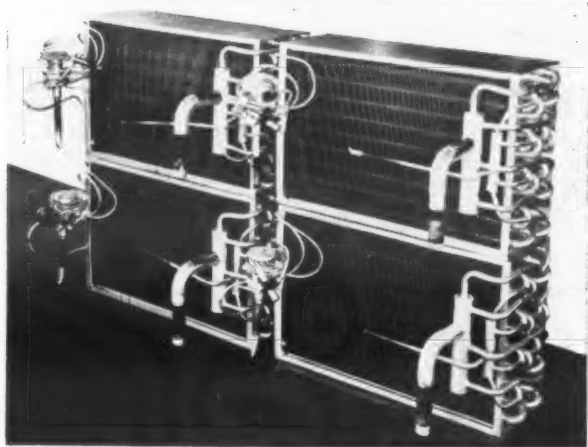
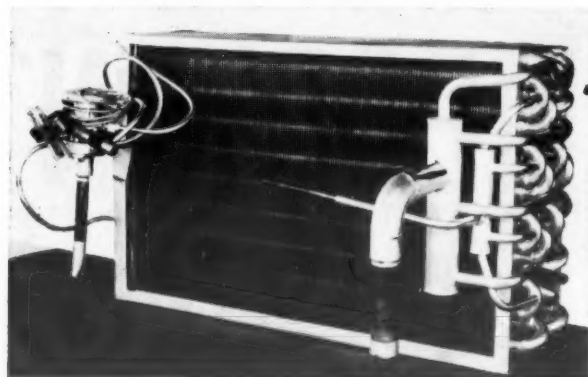
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Lauer Describes Vast Cooling Market--

(Concluded from Page 1, Column 4)
by the hotels alone in their projected renovation work.

"War and other recent developments have opened many new fields. Air conditioning and refrigeration have become integral parts of numerous manufacturing processes, which a few years ago were conducted without any consideration of controlled temperatures or humidities.

"Refrigeration is now applied to the machine tools used in many heat generating operations. This has allowed industry to accelerate its speed and has greatly reduced work stoppages. During the war the number of metal working plants employing air conditioning increased more than 10 times.

"Air conditioning has become essential in precision manufacture and also in work calling for highly polished surfaces, such as are easily ruined by dust or perspiration.

"Our American productive system continually demands greater speed and higher standards of uniformity and precision. Almost invariably

these demands mean that temperature, humidity, and air cleanness must be controlled.

"Of course the industry's most important job is in the processing, transport, and storage of perishable foods, and this includes almost the entire range of food, from meats, fish, and dairy products, fruits and vegetables, to bread and even dehydrated and compressed foods. Bread is quickly cooled to retain flavor and prevent mold. Trichina in pork can now be killed by sub-zero cold treatments.

"Perhaps most important in the food industry is the freezing technique which was coming into such wide use immediately prior to the war. Not only has it served as a new method of storing perishables, but it has permitted canning and processing plants to store produce at harvest time and keep their plants operating on a year-around basis, rather than rushing through the harvest period, allowing some of the food to spoil, and offering only seasonal work to employees.

"The rapidly growing industrialization of the South opens still another sizeable market for air conditioning and refrigeration. Many industries, until now largely Northern for climatic reasons, can be carried on with the aid of air conditioning or refrigeration in the hottest parts of the nation.

"Human efficiency, always low in the high temperature and high humidity zones, was increased in Southern war plants by the use of air conditioning. Plant working conditions in the South can be brought to a parity with those of the North."

Copper Shortage Hits--

(Concluded from Page 1, Column 2)

sold parts or accessories to other electrical manufacturers, would likewise see their normal markets within the industry erased by shutdowns.

What Government aid was in sight gave no promise of an early end to the dwindling copper supply problem. Of the 400,000 tons of copper in Federal stockpiles, but 10,000 tons of wire bars could be expected to be released by the end of the month. Only half the Government total reserve was electrolytic copper, and of that amount little better than 100,000 tons was said to be in a form which could be converted to the use of wire and cable manufacturers.

Since the monthly industrial copper consumption rate of wire bars is some 60,000 tons, and imports of copper allowed by the Government are on a limited scale, Mr. White could see no hope of meeting demand.

The wire and cable manufacturers, where the Board revealed the most drastic and immediate effects would be felt, have already begun slowing down. Spokesmen stated that in some cases production had been curtailed to 25% of capacity. One representative said his company was able to employ but 50% of its normal force and was operating on about 25% of its customary supply of copper. Another reported that his plants had enough copper to run at 75% of capacity the rest of the month, but after that would have no copper.

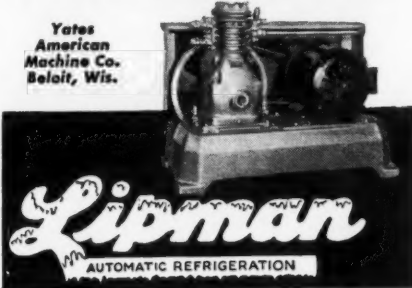
With the producers of electric motors and transformers the story was much the same. One of the largest manufacturers said his plants would be shut down within 10 days.

Another said his company had planned a two weeks' shutdown in August as a vacation, but his rapidly disappearing stocks of copper had compelled him to advance the vacation period to the last week in June and the first week in July. And unless a copper supply could be amassed during the time, he said the vacation would have to be extended.

A similar shutdown the first two weeks in July was being planned by Mr. White for his appliance firm, Landers, Frary & Clark.

An unnamed small appliance manufacturer stated that his company had temporarily bypassed its shortage of cord sets, switches, and other parts, because of the fact that no materials had been used during a recent strike of three weeks' duration. But even at that, he said, production on one item had already been halted.

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Plan your automatic refrigeration installations for a triple advantage: Proved performance, low first cost, low maintenance cost. LIPMAN machines for dependable service in any field of commercial refrigeration are the result of more than a quarter century of manufacturing know-how. Let LIPMAN serve your needs profitably!
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War-Closed Appliance Dept. Reopened by Waterbury Firm

WATERBURY, Conn.—The Howland Hughes Co. here has re-established its appliance department which was closed up during the war for lack of merchandise.

Two display levels will show refrigerators, washing machines, home freezers, ironers, and kitchen cabinets. The store sent out 6,000 direct mail notices to its old customers that they now may find all home appliances at Howland Hughes.

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temp commercial refrigeration products and self-contained condensing units from 1/4 to 75 h.p. meet every commercial and industrial need.

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These photographs show the results of practical machine tests in which 10% oil was circulated with the refrigerant. Valve temperature was approximately -25 degrees Fahrenheit. Every effort was made to exclude moisture. Within a few hours wax separated throughout the body of the expansion valve and the forepart of the expansion coil adhering firmly to the metal.

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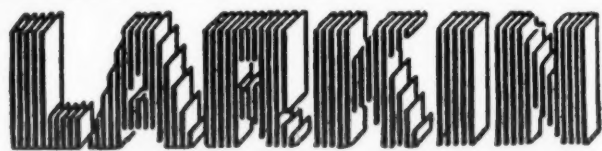
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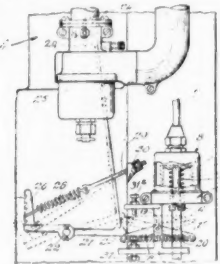
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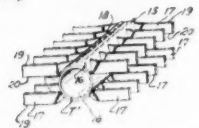
Week of May 21
(Continued)

2,400,665. CONTROL MECHANISM FOR REFRIGERATING SYSTEMS. Ray G. Thomas, Bloomington, Ill., assignor, by mesne assignments, to Eureka Williams Corp., a corporation of Michigan. Application June 16, 1941, Serial No. 398,198. 11 Claims. (Cl. 62-4.)



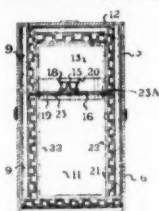
1. In a refrigerator system comprising a compressor, a gas engine for operating said compressor, a throttle for said engine, said throttle being normally spring tensioned toward high speed position, snap-acting means controlled by the pressure in said system to move said throttle from high speed position to low speed position and vice versa in response to predetermined variations in pressure in said system, and means to vary the resistance of said throttle to movement by said pressure controlled means.

2,400,737. PINNED TUBE. John W. Brown, Jr., Lakewood, Ohio, assignor to Brown Pintube Co., Elyria, Ohio, a corporation of Ohio. Application July 14, 1942, Serial No. 450,841. 1 Claim. (Cl. 257-262.)



A heat exchange element comprising a tube having a pair of longitudinally extending finned members welded thereto, each finned member comprising an elongated base portion welded to a tube and two rows of spaced fins integral with the base portion and the fins having substantially plane portions lying in planes parallel to each other and normal to the axis of the tube, the longitudinal edges of the fins in each row being parallel to each other, and lying in planes parallel to and spaced from the planes of the longitudinal edges of the fins in the other rows.

2,400,742. PORTABLE REFRIGERATING DEVICE. Leonard F. Clerc, Chicago, Ill. Application Nov. 16, 1942, Serial No. 465,655. 5 Claims. (Cl. 62-91.5.)

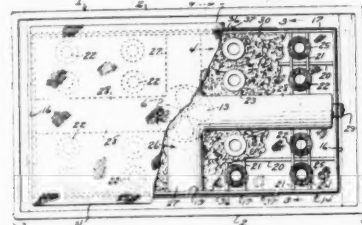


1. The combination of upper and lower insulated sections, separated by an adjustable apertured control panel, said panel and said upper section being supported by the walls of said lower section, spaced means carried by said panel for supporting a solid refrigerant such as "dry ice," and spaced means carried below said panel for uniformly diffusing the gas produced by the sublimation of said solid refrigerant.

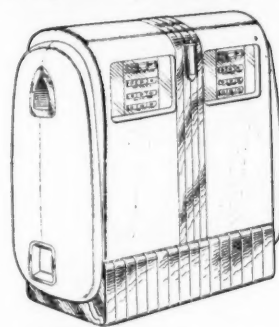
2,400,790. BABY COMFORT CAB. William B. Tolen, Riverside, Calif. Application Nov. 16, 1944, Serial No. 563,726. 5 Claims. (Cl. 5-284.)

5. An air conditioning and cooling and heating device for babies comprising a mattress having a supporting frame carrying inner springs, tubular members formed with telescoping sections within the springs and forming channels for air circulation, a tubular member between said sectional tubular channels to receive hot or cold fluid, an air circulating means,

the mattress having overhanging lateral edges, and adjustable valve means below the edges to control ventilation within the mattress.



144,813. DESIGN FOR A HOUSING FOR DISPENSING APPARATUS. Carl W. Sundberg, Birmingham, Mich., assignor to Bowser, Inc., Fort Wayne, Ind., a corporation of Indiana. Application July 30, 1945, Serial No. 121,072. Term of patent 14 years. (Cl. D52-2.)



The ornamental design for a housing for dispensing apparatus, as shown.

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RATES for all other classifications \$5.00 per insertion. Limit 50 words.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

PAYMENT in advance is required for advertising in this column.

POSITIONS AVAILABLE

WANTED veteran with Army or Navy refrigeration training. High school or college graduate, interested in chemistry and refrigeration for interesting work with growing company in the refrigeration field, Newark, N. J. Write giving complete details in first letter. Box 2000, Air Conditioning & Refrigeration News.

ERECTING AND SERVICE engineer age 37, 12 years experience on commercial and industrial cooling. Now employed. Desire Change. Prefer south or southwest. Available on 30 days notice. Box 1999, Air Conditioning & Refrigeration News.

POSITIONS WANTED

FIELD SERVICE engineer, 38, married, desires connection with manufacturer or sales organization: 20 years experience in commercial refrigeration and air conditioning. Will travel southwest or west coast. Will consider sales or taking charge of large service shop. References. Further information on inquiry. Box 1999, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

FOR SALE: 10,000 new aluminum ice cube trays in three popular sizes. Also air-cooled and water-cooled remanufactured condensing units 1/4 up to 2 hp. Write for particulars. EDISON COOLING CORP., 310 E. 149th St., Bronx 51, N. Y.

SEALED CROSLLEY units with leaky terminals can be repaired by you in a few minutes without opening the compressor. Set of three outside replacement terminals \$6.75 (Part No. 1020). Installation tool \$1.65. Fits all Crosley "F-12" units. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

SEALED WESTINGHOUSE units with shorted, leaky, or grounded terminals can be repaired by using our replacement terminals. Set of three \$2.85 (Part No. 1030). Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

COMPLETE CARRIER 7 1/2 hp. Refrigeration Units—"Freon"—High and low sides in assembled package—Immediate delivery—Crated for export. Suitable for low and medium temperature walk-in refrigerators; Air conditioning applications. Useful in tropical climates. GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12, N. Y. STUvesant 9-1222.

MAGIC TEMP dry beverage coolers. 6 foot, capacity 24 cases. Constructed of 16 gauge steel, with stainless steel disappearing doors. Special MAGIC TEMP circulating air systems. Immediate delivery. MAGIC TEMP COOLER CO., 311 John St., Utica 2, N. Y.

CARRIER 3 hp. units complete with coil, compressor and condenser—air cooled 220-3-60. Heavy duty unit built for U. S. Navy. Requires no installation except to connect power line. New, ready to use for normal or low temperatures. Immediate delivery. For complete details wire or write RAMSEY-BENNETT CO., 430 Huron Road, Cleveland 15, Ohio.

ICE CREAM cabinets, 4-6-8-10-12 hole, less units. Immediate delivery. Eskimo freezers. WILSON FREEZERS, INC., 837 Tilden St., N.Y.C.

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For Service and Installation Engineers



Manager, Refrigeration
and Air Conditioning
Division, Perfex Corp.

Service Chart for System Using Thermostatic Expansion Valve & Temperature Control (Bulb on Evaporator)

Symptoms	Possible Causes	Remedy
CONDENSING UNIT RUNS TOO LONG OR CONTINUOUSLY Evaporator frosted, partially frosted or entirely defrosted, but not cold enough. Refrigerator not cold enough. Suction line warm. Suction and discharge pressures high. Discharge from compressor hotter than normal.	Condensing unit overloaded. Air in system. Condensing unit capacity reduced by excessive discharge pressures.	Reduce load or replace condensing unit with a larger one. Purge air from condenser several times. Check for causes of excessive condensing pressure. See section "High pressure cut-out short-cycling."
Same, except discharge pressure normal too low and discharge not as hot as normal.	Compressor inefficient. Motor running too slowly. Compressor running too slowly; belt slipping. Finned evaporator iced up.	Check for leaking suction valves or even discharge valves; too much piston head clearance, worn or stuck rings; repair or replace. Test voltage at motor terminals; check commutation. Test compressor RPM. Tighten belts. Defrost evaporator and reset controls to a defrosting cycle.
Evaporator frosted or fully active, but not cold enough. Refrigerator not cold enough. Suction line cool, sweating.	Expansion valve feeds too much refrigerant. Valve adjusted for not enough superheat. Feeler bulb not in good thermal contact with outlet of evaporator. Feeler bulb exposed to warm room air. Expansion valve "sticky" due to ice in valve. Moisture frozen to ice in body bellows of valve. Expansion valve too large or of wrong type.	Readjust valve. See that bulb is tightly clamped to suction line. Insulate bulb from room air. Install dehydrator in liquid line. Cleaning valve perhaps necessary. Wash bellows out with alcohol and put in teaspoonful of glycerine. Replace with correct size and type.
Evaporator frosted or fully active. Refrigerator too cold. Suction line cool. Suction pressure slightly low. Discharge pressure normal to low. Compressor discharge temperature normal.	Temperature control stuck in closed position; contacts welded together or mechanism defective. Temperature control set too low. Temperature control bulb not in good contact with evaporator.	Replace temperature control. Readjust control. Replace bulb or secure it to evaporator.

Boston Store to Expand New Appliance Department

BOSTON—Plans for the expansion of the new appliance department on the sixth floor of Chandler & Co., Tremont-street specialty store, are announced by Stowell Johnson, home furnishings merchandise manager.

Approximately 1,200 sq. ft. of selling space will be devoted to the sale of such major household appliances as refrigerators and washing machines, radios, and traffic appliances.

Located next to the store's gift department, the enlarged appliance section is expected to do its greatest volume of business in selling appliances as gifts.

Heatley Bros. Form \$25,000 Charleston Appliance Firm

CHARLESTON, W. Va.—A new large-scale appliance dealership recently chartered here is Heatley Brothers, Inc., which will carry full lines of major appliances. The concern is capitalized at \$25,000, and will be headed by Joseph E. Heatley and Glenn E. Heatley, from Beckley, W. Va.

Rowe Heads Appliance Dept.

BINGHAMTON, N. Y.—Hills, McLean & Haskins here, department store, have opened a new appliance department in the basement, adjoining the housewares section. M. W. Rowe has been named head of the department, which held a formal opening celebration recently.



Gilmer V-Belts fit. Once they are installed no return trips for re-adjustment are necessary. Gilmer V-Belts fit because cords are normalized to minimize stretch.

And Gilmer V-Belts have all the other important qualities that count. They are ruggedly built for long life. They assure dependable performance. And there are sizes for all needs, for Gilmer V-Belts are made on the largest assortment of V-moulds in the world. Get in touch with your jobber today.

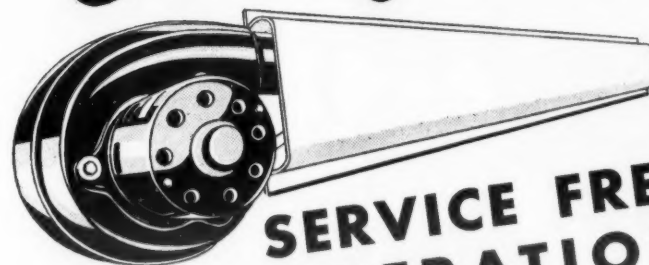
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Built in equalizer automatically controls proper humidity, temperature and operation.

Effects 25% saving on operating cost.

The climatic conditioning effect in this coil is new in design, operation and theory; makes all other coils old and outmoded.

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Ranco Refrigeration Controls—for obvious reasons—are the controls you can "ride with" and trust. Ranco never lets you down.

Sturdy construction out of best materials—skillful workmanship—beauty of design—careful inspection at every step of machining and assembly . . . these give Ranco Controls their accuracy and dependability and make Ranco the Trade Mark of Precision.

When you install a Ranco Control you gain a satisfied customer.

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—and we mean "COMPLETE SURFACE."

Take a 19" x 108" Hubbell-Yoder Plate for example. That's 2052 square inches of plate area. And every single square inch is actual prime heat pickup surface. You see the interior of the plate is a network of ducts through which the refrigerant circulates, spreading out in all directions so as to form a web of refrigerating element. That's "Complete Surface Freezing."

If you make, sell or use low temperature equipment such as freezer cabinets, locker plant plate banks, sharp freeze shelf stacks, etc., it will certainly pay you to get details on Hubbell-Yoder Plates. They'll step up operating efficiency and reduce operating costs. As the old darkey said, "Dat am no prophecy: dat am a fact." Write, wire or phone.



International Sales Agents
ENGINEERING SERVICE INC.

1309 WEST 80TH STREET

CLEVELAND 2, OHIO

Range Price Boost--

(Concluded from Page 1, Column 5)

To illustrate how Rule 1 is to be applied, OPA gives the following example:

"A distributor who sold Model X produced and sold by manufacturer Y during the period May 7, 1946 to June 6, 1946 to servicing dealers at a dollar-and-cent ceiling price established by an order under Maximum Price Regulation No. 64 computes his ceiling prices for resales of the Model X electric range as follows:

"Retail ceiling price in the distributor's zone, including the Federal excise tax	\$210.00
"Retail ceiling price in distributor's zone, exclusive of Federal excise tax	200.00
"Manufacturer's ceiling price, f.o.b. factory to distributors on April 30, 1946, exclusive of the Federal excise tax	100.00
"Gross dollar margin	100.00
"Distributor's ceiling price exclusive of the Federal excise tax to servicing dealers on May 15, 1946	125.00
"Amount of total dollar margin received by the distributor	25.00
"Per cent of gross margin	25%
"Manufacturer's ceiling price to distributors adjusted under section 8b (b)	111.00
"Retail ceiling price under section 11b exclusive Federal excise tax	204.00
"Gross dollar margin	93.00
"Portion taken by distributor (25% of \$93.00)	23.25
"Distributor's new ceiling price exclusive of the Federal excise tax to servicing dealers	134.25
"Distributor's new ceiling price to servicing dealers including the Federal excise tax	145.35

"Distributor may determine his ceiling price for sales to other classes of dealers by adding his customary differentials for such sales."

2. If the ceiling price cannot be determined under Rule 1, it is "the ceiling price established under this paragraph for the same sale by the 'closest seller of the same class.'"

The term, "closest seller of the same class," is defined as "a distributor who (a) has established a ceiling price for sales of the identical model of electric range to the same class of purchaser, and (b) is the same general type of seller, and (c) is located in the same zone and is nearer to the seller than any other seller who meets requirements (a) and (b)."

Four methods are described by OPA by which wholesale distributors are to find their adjusted ceilings for any stove other than an electric range.

Regulations pertaining to the determination of retail prices are broken down in section 11b according to "stoves not subject to the Federal excise tax," stoves subject

to the Federal excise other than electric ranges," and "electric ranges."

The section dealing with electric ranges provides that every manufacturer who has had retail ceiling prices established for his ranges by an order issued under section 11 prior to June 7 is required to recalculate those prices under the first applicable rule of the following three:

1. If the retail ceiling price for a particular model in Zone 1 (exclusive of the Federal excise tax and any amounts included on account of freight) is 187% or less of the product of 1.07 and the manufacturer's lowest f.o.b. factory ceiling (exclusive of the Federal excise tax) established under sections 3, 4, 5, 7, or 8 for sales to wholesale distributors, the retail ceiling price "is the total rounded to the nearest 25 cents, of the following:

"(1) The retail ceiling price previously established by the order under section 11 diminished by the amount of the Federal excise tax included therein, and

"(2) An amount equal to 4.0% of the manufacturer's lowest f.o.b. factory ceiling price (exclusive of the Federal excise tax) established under sections 3, 4, 5, 7, or 8 . . . for sales of the same model to wholesale distributors, and

"(3) The Federal excise tax applicable to his lowest f.o.b. factory ceiling price to wholesale distributors."

This rule further specifies that retail ceiling prices for the same model in zones other than Zone 1 are to be determined "by adding to the Zone 1 retail ceiling price determined under this rule the dollar-and-cent amount of the previously established differential between retail ceiling prices in Zone 1 and in each of the other zones in effect on the same model."

2. If the retail ceiling price of a

particular model in Zone 1 is more than 187% of the product of 1.07 and the manufacturer's lowest f.o.b. factory ceiling price, the retail ceiling will be the higher of the following amounts:

"(1) The total rounded to the nearest 25 cents, of the ceiling price in effect before June 7, 1946, and the dollar-and-cent amount of the increase in the Federal excise tax resulting from the increase in the manufacturer's price under section 8b (b), or

"(2) The total rounded to the nearest 25 cents, of the following:

"(i) 187% of the product of 1.07 and the manufacturer's lowest f.o.b. factory ceiling price (exclusive of the Federal excise tax) established under sections 3, 4, 5, 7, or 8 . . . for sales of the same model to wholesale distributors, and

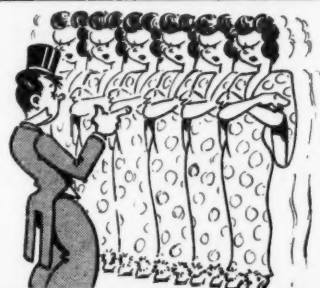
"(ii) An amount equal to 4.0% of the manufacturer's lowest f.o.b. factory ceiling price (exclusive of the Federal excise tax) established under sections 3, 4, 5, 7, or 8 . . . for sales of the same model to wholesale distributors, and

"(iii) The Federal excise tax applicable to his lowest f.o.b. factory ceiling price to wholesale distributors, and

"(iv) The amount included on account of freight in the Zone 1 retail price previously established by the order under section 11 . . ."

Retail ceilings for zones other than Zone 1 are to be determined in the same way as prescribed in the first rule.

3. If neither of the above rules are applicable, the manufacturer may ask that prices be fixed for him. The application must state the name of the manufacturer, the model designation, and the reasons for being unable to determine ceilings.



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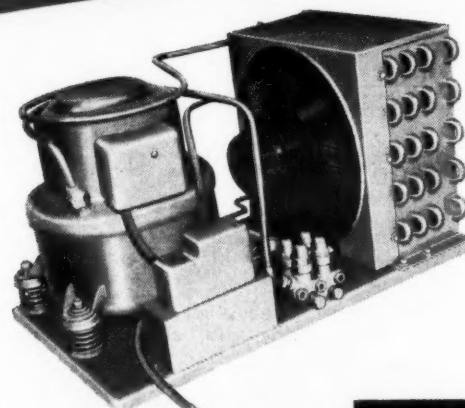
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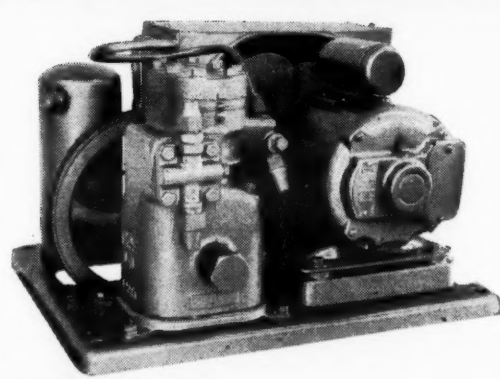
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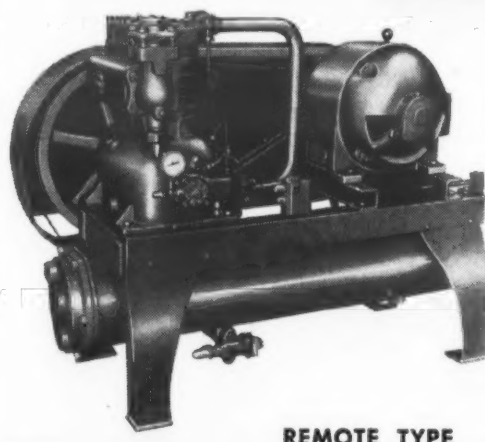


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